

Local Development Area Structure Plan

Southside
Emerging Urban Structure Plan
& Urban Design Strategies

FINAL

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List of Acronyms

DTMR	Department of Transport and Main Roads
LDA	Local Development Area
LGIP	Local Government Infrastructure Plan
PIA	Priority Infrastructure Area
SPP	State Planning Policy
WSUD	Water Sensitive Urban Design

1.0 Introduction

1.1 Relationship to the Planning Scheme

The Southside Local Development Area (LDA) is identified in the Gympie Regional Council Planning Scheme 2013 (the Planning Scheme), as available for future residential purposes. Large areas of the LDA are included in the Residential Living Zone with some areas included in the Limited Development Zone. The Residential Living Zone is intended to provide predominately for dwelling houses with some supporting community uses and small-scale services and facilities to cater for local residents. The minimum lot size in the Residential Living Zone is 500m².

The provisions of the Planning Scheme require an approved Structure Plan to be in place prior to any significant development occurring within the LDA. Development pressures has meant that Council prioritised the structure planning exercise for the LDA to confirm a sustainable pattern of development and provide for more detailed planning of the areas included in the Residential Living Zone.

The Southside LDA is currently a large broad-hectare area where the resolution of constraints and confirmation of an appropriate pattern of development will allow Council to responsibly manage population and employment growth and respond to the identified opportunities and constraints of the LDA, whilst protecting the key values Southside.

1.2 Background

Gympie is bisected by the Mary River and the Bruce Highway which creates two distinct areas of urban settlement, Gympie (eastern side) and Southside. The eastern side is extensively developed for commercial, industrial and residential purposes and accommodates a majority of the key services for the area around the CBD. Contemporary housing estates supported by some smaller scale commercial activities are established in Southside. Gympie's settlement pattern has developed as a consequence of the unique natural constraints of the local topography. Gympie is characterised by a relatively low residential density. As a historic gold mining town, most people live in houses on relatively large lots, with most recent development occurring in the suburb of Southside.

Lots in the Southside LDA are generally around 2,000m² to allow for the inclusion of septic tanks on site. As a result, a culture has developed where people purchasing in Southside seek these larger lots. A range of living options are available, however further opportunities exist to establish a more compact settlement pattern, comprising a range of multiple dwellings and small lot housing, in close proximity to centres, services and infrastructure.

In preparation for drafting of a new Planning Scheme for the amalgamated Gympie Regional Council in 2009 a number of studies were undertaken. Urban expansion opportunities in for residential and employment purposes were recognised in the Planning Scheme Study 2009 - Summary Report prepared for Gympie Regional Council by GHD and the raft of supporting studies informing the Report.

Urban expansion for residential uses were recognised in the Gympie Planning Study – Residential and Rural Residential Study prepared by Buckley Vann in February 2010. The Study recommended a number of options for urban expansion in Southside across a number of areas including land south of Glastonbury Road, bound by Watson Road and Eel Creek Road, surrounding Groundwater Road and bound by Silva Road. These areas were identified as being appropriate for low density residential development in the long term. The boundary of the LDA follows closely the collective boundary of the growth areas identified by the 2010 Residential and Rural Residential Study.

The LDA is largely bound by the existing urban edge of the suburb of Southside along the eastern boundary, following Eucalyptus Avenue, Watson Road, Koumala Road, Groundwater Road, and Pedersen Road. To the south, the Precinct is bound by roads in the rural landscape around Pie Creek, including Alpha Road, Silva Road and Lawson Road. The western boundary runs along Eel Creek Road and property boundaries in the vicinity of Eel Creek in the north of the Precinct. At the northernmost boundary the Study Area meets Stumm Road and is in proximity to the Mary River.

As a result of the findings of the Gympie Planning Study – Residential and Rural Residential Study the Planning Scheme identified the LDA as available for future residential purposes and included large parts of Southside in the Residential Living Zone. The Residential Living Zone is intended to provide predominately for dwelling houses with some supporting community uses and small-scale services and facilities to cater for local residents. The minimum lot size in the Residential Living Zone is 500m².

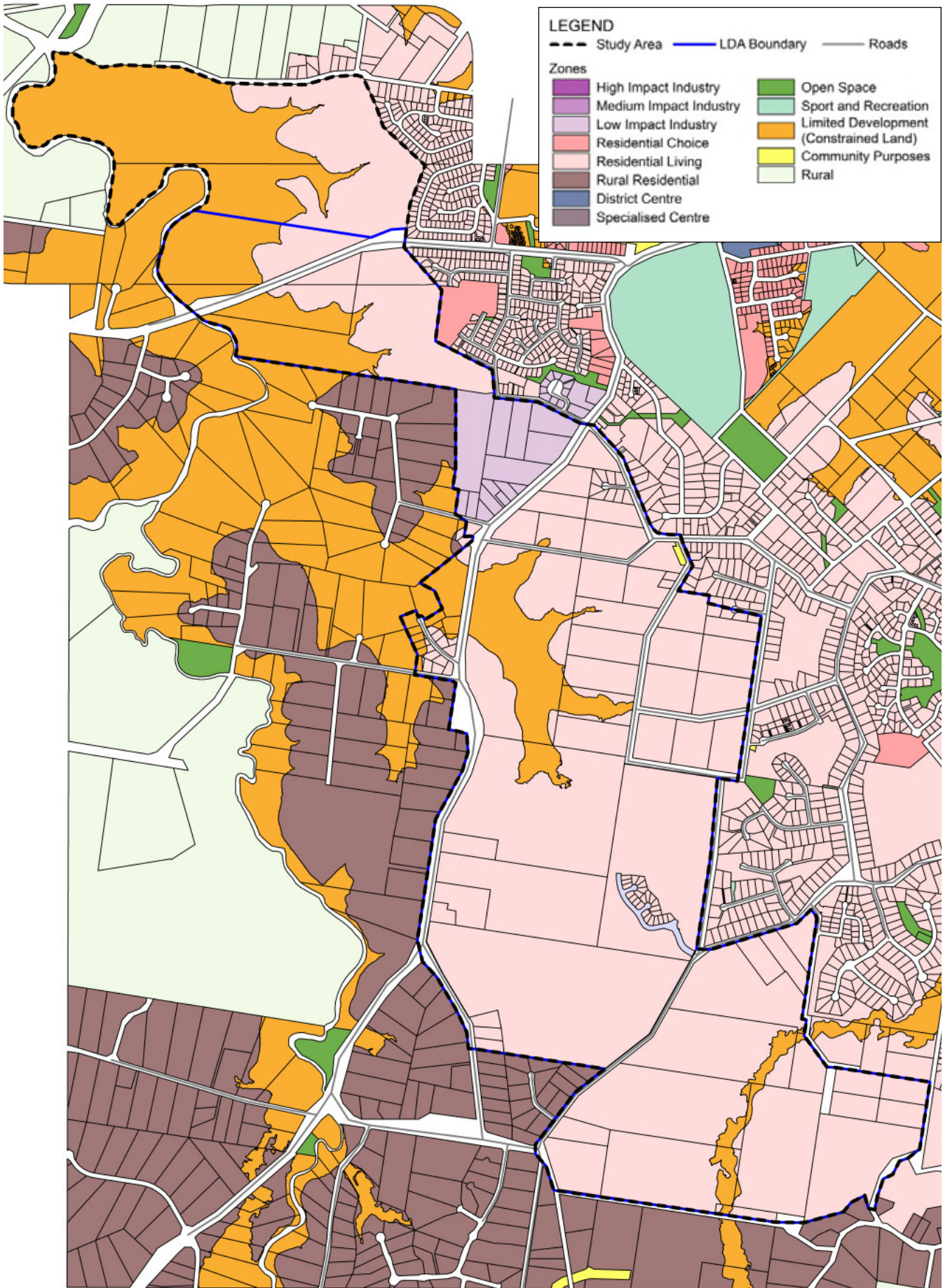


Figure 1.1: Zoning

The provisions of the Planning Scheme require an approved Structure Plan to be in place prior to any significant development occurring within the LDA. Development pressures has meant that Council prioritised the structure planning exercise for the LDA to confirm a sustainable pattern of development and provide for more detailed planning of the areas included in the Residential Living Zone.

The Southside Local Development Area has the potential to accommodate significant future residential growth in the medium to longer term, however to ensure the viable and efficient use of the land, structure planning is required to be undertaken prior to any significant development occurring.

1.3 The Southside LDA Vision

In the Planning Scheme, the Southside LDA is identified as a Precinct within the Residential Living Zone. The following Overall Outcomes are applicable to the Southside Local Development Area Precinct:

1. Development is appropriately coordinated and sequenced in accordance with an approved structure plan to ensure the most effective and sustainable use of land;
2. Interim development does not compromise the future development potential of the area for urban purposes and uses that are incompatible with residential uses are not established;
3. Development of land is based upon the provision of the full range of urban infrastructure and services, consideration of environmental constraints and desired development pattern for the area;
4. Development is supported by the necessary transport infrastructure which is designed to integrate with existing networks and promotes safe and efficient public transport use;
5. Emerging urban areas are developed in a sustainable manner to reflect the general form of the planning scheme area by integrating development sites, community infrastructure, open space, important natural features and ecologically significant attributes;
6. Emerging urban areas provide a mix of housing types to support the diverse and changing housing needs of the prospective community;
7. Significant historical, topographic, landscape and scenic values, as well as natural habitat areas, wildlife corridors, wetlands and waterway corridors are protected and enhanced; and
8. Emerging urban areas provide a high level of residential amenity having regard to traffic, noise, dust, odour, lighting and other locally specific impacts including nearby industrial, agricultural or other incompatible uses.

Structure planning for the Southside LDA has sought to achieve these Overall Outcomes and facilitate development that will align with them. Structure planning will guide the major changes to land use, built form and public spaces to ensure the Overall Outcomes for the Southside LDA are delivered.

1.4 What is Structure Planning

Structure Planning is a tool for managing the integrated and orderly development of large areas of land held across multiple ownerships. The structure plan provides the framework to guide the development of the Southside LDA by defining the future land use pattern, indicative densities, areas of open space and indicative infrastructure networks such as roads.

Structure planning will ensure that future development in the Southside LDA:

- appropriately addresses geographical constraints;
- protects environmental and cultural heritage values by identifying areas of significance;
- provides for major stormwater flow paths through the site;
- protects floodplains and water quality;
- provides necessary physical infrastructure;
- achieves an appropriate level of amenity and safety for adjoining land uses; and
- achieves an appropriate distribution of land uses.

As shown in Figure 1.2, the structure plan is a strategic planning tool that provides a level of detail between the broad scale application of the Residential Living Zone in the Planning Scheme and the site specific nature of Development Assessment. It provides guidance on appropriate density of development, identifies open space and ecological corridors, and identifies indicative transport networks.

The structure plan will be incorporated into the Planning Scheme through an amendment which will include the structure plan maps along with a range of provisions to ensure that development proceeds in accordance with the structure plan and the key features are retained through development of the LDA.

	LEVEL	TOOL	COMPONENTS
LEVEL OF DETAIL	Gympie Wide	Gympie Regional Council Planning Scheme 2013	<ul style="list-style-type: none"> • Southside LDA Precinct within the Residential Living Zone. • Overall Outcomes set direction for development of Southside. • Requirement for development to occur in accordance with an approved structure plan.
	Area Specific	Southside Local Development Area Structure Plan	Identifies and provides additional detail on: <ul style="list-style-type: none"> • type and location of land uses and indicative densities; • open space network and ecological corridors; • key drainage corridors; • Constraints on development; and • Indicative staging.
	Site Specific	Development Assessment	<ul style="list-style-type: none"> • Detailed design of transport network (e.g. roads) • Retention of vegetation at a site specific level. • Building design and setbacks. • Site specific stormwater treatment. • Lot layout and design. • Interface with existing development.

Figure 1.2: LDA Relationship to the Planning Scheme

1.5 Urban Context

As the Gympie Region continues to grow, traditional urban development forms and lot sizes may not meet the needs of the future community and opportunities to improve the liveability and long term environmental health of the region.

The predominant pattern of Gympie's growth has been suburbia, with traditional lot sizes in the order of 700m² - 2000m² up to rural residential lots. There is a strict segregation of residential uses and minimal locally based commercial or employment opportunities. Development is designed primarily around car use and is characterised by single family houses, cul-de-sacs and no-frontage collector roads. Most people drive to meet their daily needs, such as dropping the children at school, picking up milk or bread, or going to the park. The character and function of these neighbourhoods is increasingly at odds with contemporary community design initiatives which support a lifestyle where being active, living outdoors and enjoying the climate is part of everyday life.

Many of the issues common to most of our larger cities — housing affordability, inefficient or stretched infrastructure networks, poor public transport, urban placelessness, declining personal health, lack of local social opportunities and loss of valuable habitat or rural land — if they aren't already present, will become future challenges for Gympie as it grows. It is in this context that structure planning and urban design for the Southside LDA is viewed as a step in not only providing for the region's growth but establishing benchmarks for sustainable urbanism.

Urban planning and design strategies place emphasis on the social, economic and environmental aspects of development to create more liveable suburbs that reduce dependency on private vehicles and are more energy, infrastructure and land efficient. These strategies focus on creating an urban structure based on walkable neighbourhoods with local centres and interconnected street patterns that facilitate convenient movement and public transport. There is an emphasis on good neighbourhood design and 'placemaking' to encourage more people to walk and actively use local centres, streets and open spaces. Local employment opportunities are encouraged to provide the community with a sound economic base and increase self containment. Open spaces have genuine purpose and character and afford a wide range of recreation and movement opportunities.

The aim of the Southside LDA Structure Plan and Urban Design Strategies is to facilitate a sustainable approach to urban development responsive to the Gympie context. It seeks to meet the needs of a wide range of existing and future residents and workers, focuses on reducing car dependence, encourages greater local self-containment of suburbs and protects key natural, cultural and economic assets.

Underpinned by a comprehensive exploration of the physical, social and policy context, and stakeholder engagement, the LDA Structure Plan and Urban Design Strategies establishes a guiding framework for a healthy, sustainable new community. The approach is informed by widely accepted principles for good urban development and addresses the following key elements:

- Emerging Urban Structure
- Site Responsive Design
- Movement Network - Street Network & Public Transport
- Movement Network - Pedestrian and Cycle Networks
- Residential Density and Housing Choice
- Local Activity Centre and Community Infrastructure
- Open Space and Parks

References:

- Guideline 01 Residential 30, Guideline 05 Neighbourhood Planning and Design, Guideline 06 Street and Movement Network, Economic Development Queensland, Queensland Government, 2010.
- Liveable Neighbourhoods, Western Australian Planning Commission, DRAFT 2015.
- Next Generation Planning. A Handbook for Planners Designers and Developers in South East Queensland, Council of Mayors (SEQ), 2011.
- Wide Bay Burnett Regional Plan, Department of State Development and Planning, Queensland Government, 2011

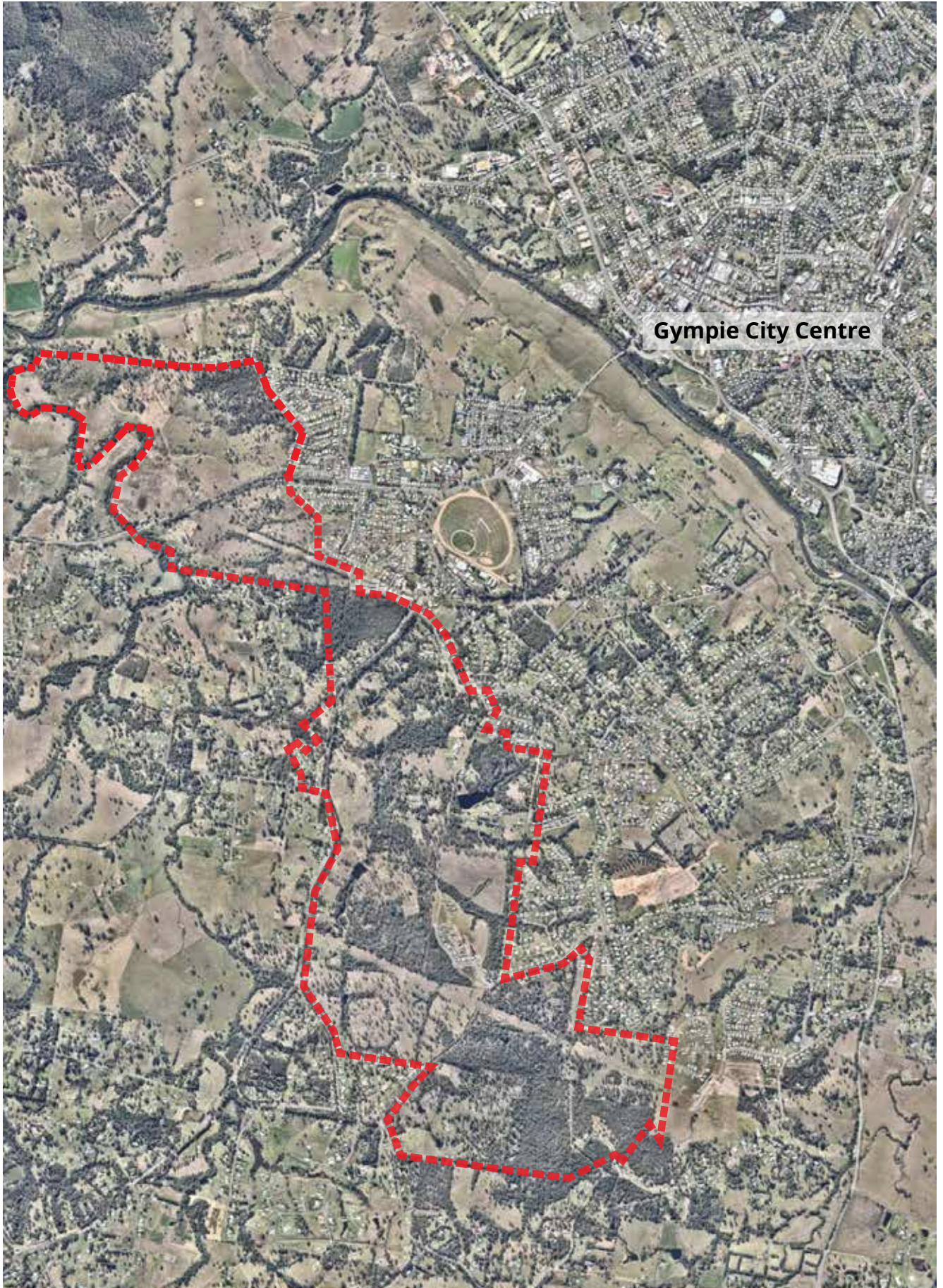


Figure 1.3: Southside LDA Aerial View

2.0 Southside LDA Structure

2.1 Emerging Urban Structure

Opportunities and Challenges

The Southside LDA is the largest greenfield in Gympie's urban area available for residential development. With over 370ha of land zoned for Residential Living, it has the capacity to accommodate significant population growth, which is forecast for the whole of the Gympie-South SA2 by 2036, to be an additional 1,200 dwellings or 2,950 increase in population. However, the north/south distinction is not a guide to the location of residential growth in the wider Gympie urban area - which will be driven by land availability, buyer choice and price - so the LDA may contribute more to the urban area's expected overall growth which is predicted to be 2,550 households by 2036.

Strategic level investigations based on the potential development area (see Figure 3.2) suggest the LDA could yield over 3000 dwellings at an average density of 10 dwellings/ha, notwithstanding a broad range of influences such as changing government policy, market forces, landowner sentiment or localised constraints. When the potential contribution of other infill development opportunities is also considered, this reinforces that structure planning for the LDA needs to be robust enough to address strategic timeframes and respond to potentially changing household structures, employment trends, community service requirements and transport needs over time.

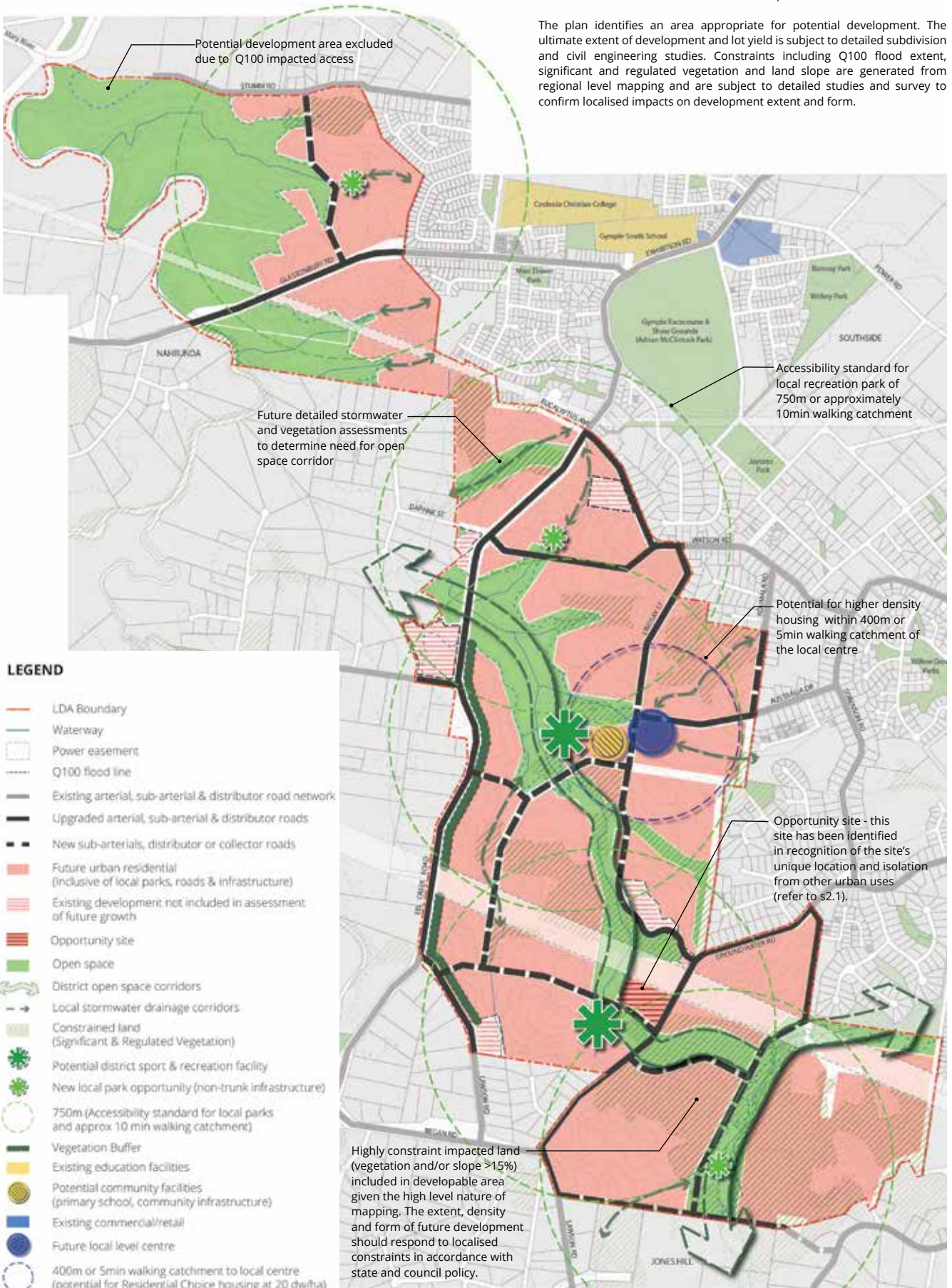
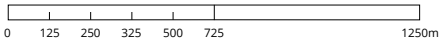
The planning and urban design approach of the LDA is underpinned by contemporary principles of community development and placemaking which address economic, environmental and social influences. Planning and urban design strategies now focus on reducing car dependence, encouraging greater local self-containment of suburbs, and protecting key natural, cultural and economic assets. The aim is to facilitate a sustainable approach to new urban development that meets the needs of a wide range of existing and future residents and workers. The LDA's future is considered in the context of city-wide benefits for Gympie as well as forecast trends in future population age and household structures.

Goal

To develop a coherent urban structure of walkable neighbourhoods, appropriate to the Gympie context and physical setting, which cluster around a centrally located activity centre capable of facilitating a broad range of local land uses, local employment and social opportunities.

LDA Response

- The development footprint responds to the identified potential development area and physical constraints (see next section);
- The highest development intensity and density is located in the northern and eastern areas, interfacing with existing residential development. Overall, the structure of development intensity and residential densities provides a logical transition to rural residential development and rural landscapes;
- Establish a potential local centre on the extension of Australia Drive and Lindsay Street. It is located centrally for new development with high levels of access to existing neighbourhoods that will form part of its commercial catchment;
- Community uses such as a primary school and a district sports facility are co-located with the centre to establish a distinctive community heart and deliver a high level of local self containment of recreation, community and convenience retail activity;
- Neighbourhoods are designed to be safe and attractive and meet the diverse and changing needs of the community by offering a wide choice of housing and access to recreation opportunities;
- Establish a movement network based on a highly-interconnected street network that clearly distinguishes between arterial, collector and local streets, establishes good internal and external access for residents, maximises safety, encourages walking and cycling and minimises the impact of through traffic;
- Structure the movement network and arrangement of centres and neighbourhoods to enable future public transport services to provide a viable and convenient alternative to private cars;
- Provide a vegetation buffer along Eel Creek Road to protect residential uses from adverse amenity impacts from road traffic, limit each lot proposing additional local road connections and allow for a transition from rural residential to urban development. The required size and featured elements of the buffer (noise mound etc) will be decided at the DA stage when information is available as to the proposed lot design and layout;



The intent of this plan is to identify strategic level directions for future residential and community land uses, open space, major road networks and infrastructure for the Southside Local Development Area.

The plan identifies an area appropriate for potential development. The ultimate extent of development and lot yield is subject to detailed subdivision and civil engineering studies. Constraints including Q100 flood extent, significant and regulated vegetation and land slope are generated from regional level mapping and are subject to detailed studies and survey to confirm localised impacts on development extent and form.

Figure 2.1: Southside LDA Emerging Urban Structure Plan

- Investigate opportunities for WSUD urban water management techniques relating to the use of natural waterways and gullies to address stormwater quality and quantity, waterway health and ongoing management;
- Establish a district open space corridor that;
 - Establishes important wildlife movement corridors and link to surrounding areas of environmental value;
 - Conserves and protect natural waterways and floodprone land;
 - Provides local and district level pedestrian and cyclist connections;
 - Provides local recreation opportunities;
 - Contributes positively to the character of future neighbourhood development through the conservation and integration of native vegetation; and
 - Reinforces Gympie's natural landscape and topographic qualities.
- Development is sequenced to facilitate timely, cost-efficient and effective infrastructure; and
- Integrate new development with established suburbs and emerging communities through appropriate development interfaces and logical connections to existing streets;

Indicative housing densities and overall LDA dwelling yields are outlined in section Section 3.4

Appropriate Development Interfaces with Existing Development

New development in the LDA will be required to have an appropriate interface with existing established development. There are a number of best practice approaches including planting and screening which can ameliorate perceived amenity impacts while maintaining the lot size set in the Planning Scheme. Interfaces with existing development is most appropriately managed at a site specific level through the Development Application process.

Opportunity Site

An Opportunity Site has been identified in Figure 2.1 and Figure 3.8. In recognition of the site's unique location and separation from other urban uses the Structure Plan recognises that this site can potentially accommodate increased residential intensity or a complimentary form of low impact land use that will not impact on the viability of the local centre or significantly delay its delivery. Development opportunity provided in this location is subject to development achieving high quality urban design outcomes and best practice integration with the district open space corridor and is contingent upon protecting, and securing in perpetuity, the open space corridor connection of a sufficient width (as identified in Figure 2.1) to preserve ecological functions.

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3.0 Urban Design Strategies

3.1 Site Responsive Design

Site and context analysis facilitates the efficient provision of infrastructure through good design and integrates features which add value to urban development. A detailed assessment of the LDA site and its immediate surrounds was undertaken to inform cost effective and environmentally responsive design that balances constraints and natural assets to create a unique identity and sense of place which is integrated with neighbouring areas.

Opportunities

- Overall, there are numerous unconstrained areas of land of a size and configuration supportive of future urban development;
- Approximately 80% of the LDA is elevated and not impacted by riverine flooding. Areas impacted by Q100 flooding can be integrated into the urban structure to contribute to the recreational needs of the future community as well as providing important urban breaks and creating a distinctive local character;
- The existing road network and points of potential connection establishes an appropriate and flood immune collector road structure for new urban development;
- The LDA is able to be serviced by reticulated sewer, water supply and stormwater networks and the undulating landform can support effective and efficient sewerage, water supply and stormwater infrastructure networks;
- Higher development intensities can be focused generally in the northern and eastern areas of the site to respond to existing residential densities and provide a transition to western rural residential living;
- The combination of remnant vegetation and landform character offers opportunities to capture views and create defined neighbourhoods with a strong sense of place and appropriate transitions to rural residential areas;
- Given the scale of the LDA, extent of developable land and relationships to existing development, there are opportunities to include local community and commercial uses that support community self-containment and greater lifestyle amenity and convenience; and
- Establish fauna movement corridors and encourage koala sensitive design outcomes in new development.

Constraints

- The major constraints to development are:
 - Flood prone land under Q100 which excludes development;
 - MSES zoned Regulated Vegetation indicating areas where biodiversity values are expected to exist and these may constrain development; and
 - Localised areas of land with slope greater than 15% where only large lot or rural residential may be appropriate;
- There is a significant network of natural overland flow corridors which require integration into future community design; and
- Some areas - particularly creek corridors and the area associated with McIntosh Creek - are subject to layered constraints which greatly impact on development potential or appropriateness for a variety of development forms.

Challenges

- Integrating appropriate WSUD and urban stormwater management systems to avoid further encroachment of the flood zone;
- Integrating and providing appropriate interfaces to flood constrained land and land that has significant vegetation, including koala habitat;
- Ensuring the interface with *Good Quality Agricultural Land* surrounding the LDA is appropriate and provides suitable buffers or transitions in development intensity;
- Managing and minimising bushfire hazard through planning and management;
- Ensuring future detailed neighbourhood design responds to the topography and minimises the visual intrusion of excessive cut and fill;
- Managing impacts and interfaces with existing residential areas including loss of views, increased residential densities and greater traffic volumes; and
- Encouraging appropriate development sequencing that supports effective and efficient delivery of infrastructure.

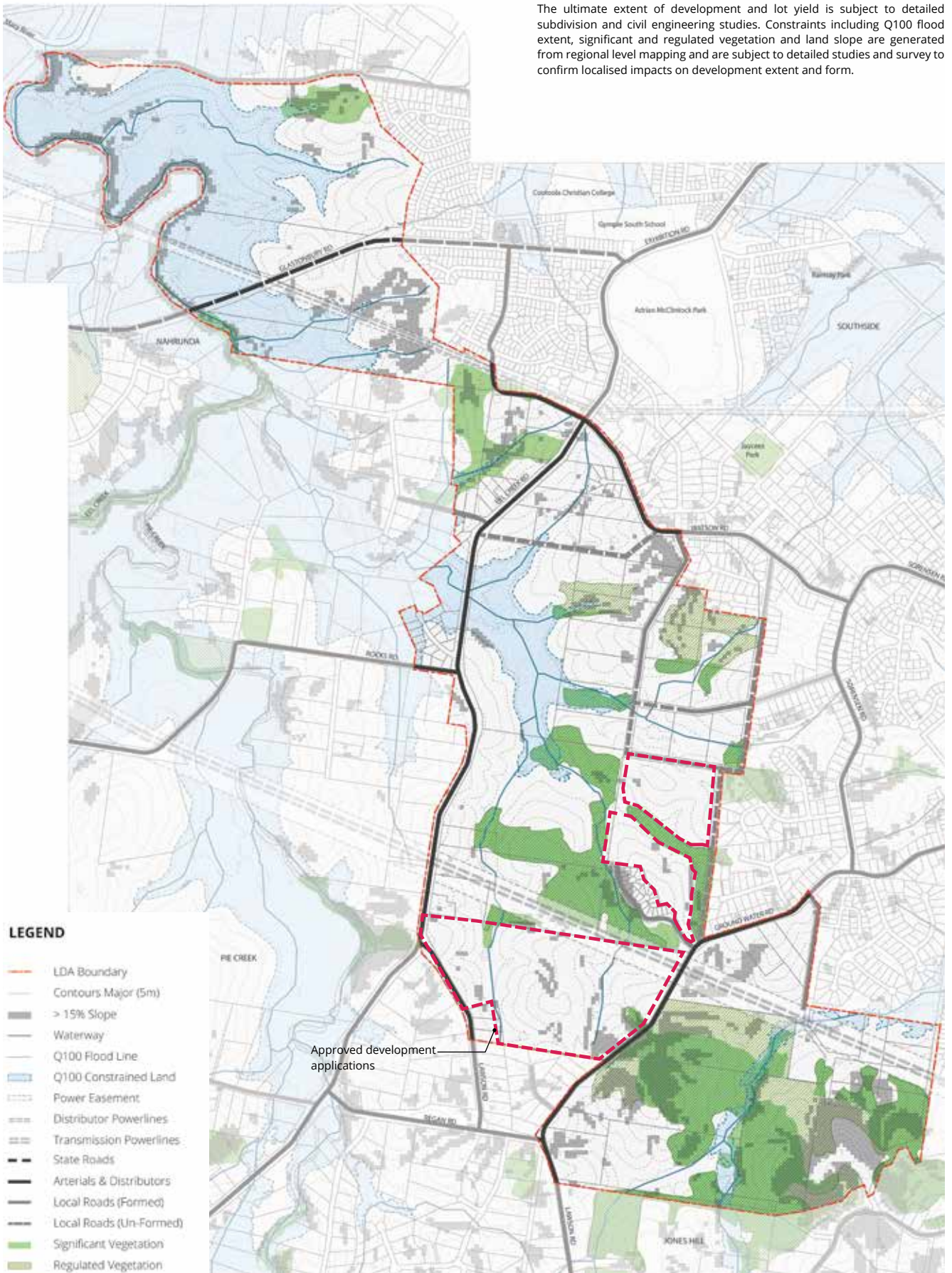
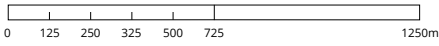


Figure 3.1: Southside LDA Constraints and Approved Developments

Goal

To achieve a sustainable urban structure through site-responsive design that appropriately addresses topography, remnant vegetation, natural waterways and native fauna.

LDA Response

- Determine the opportunities and constraints of the site and its context to inform the extent of development area and development density;
- Identify opportunities for integrating surrounding natural and developed areas, including current development approvals within the LDA;
- Enhance local identity by recognising and incorporating landscape values, local character values, landmarks, heritage, views and any other significant natural and cultural assets.
- Identify and respond to significant environmental assets and constraints such as land form, existing vegetation (including native fauna habitat for listed species), flood prone land, bushfire hazard, wetlands, waterways and stormwater corridors;
- Investigate the use of building envelopes within lots to facilitate the conservation of significant and regulated vegetation; and
- Gullies and areas of significant vegetation are recognised and options for their retention are considered on a site specific basis and managed through the Development Application process.

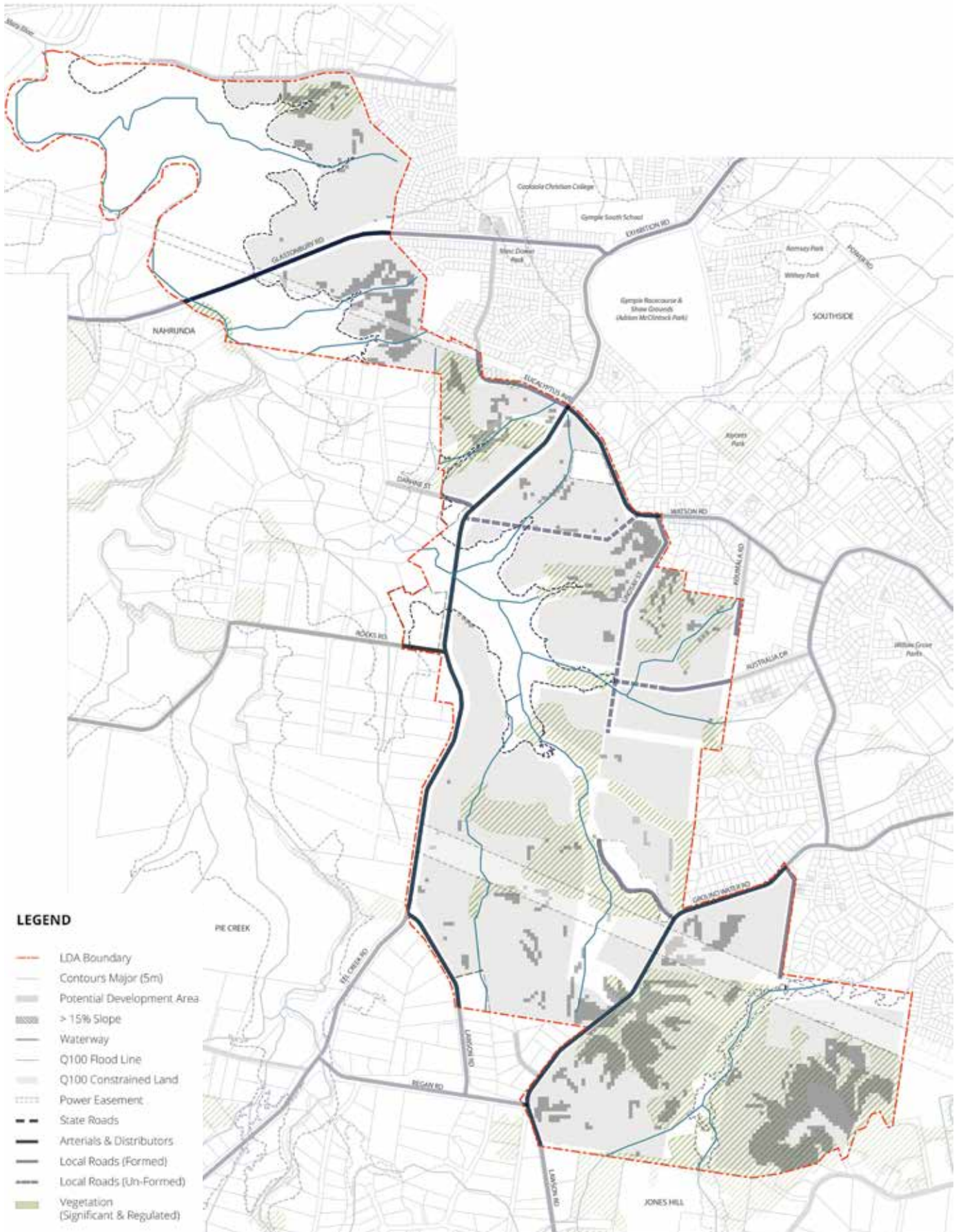
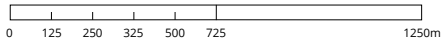
Potential Development Area

A potential development area has been identified based on physical site constraints and establishes a strategic base for structure planning of future urban land. The Potential Development Area Plan maps land that may provide opportunity for future development as it is largely unconstrained and has challenges that can feasibly be resolved. The plan has been generated from a desktop assessment of strategic level mapping and survey of known development constraints, including:

- Extent of land under Q100;
- Significant and regulated vegetation (MSES zoned Regulated Vegetation);
- Transmission corridors;
- Generalised areas of slope greater than 15%;
- Accessibility (i.e. potential to gain access via existing or future roads);
- Capacity for servicing by reticulated water supply and sewer networks;
- Size and configuration of land areas appropriate for development; and
- Existing areas of residential development and current development proposals or applications.

The potential development area is subject to detailed survey, technical assessments, detail design/subdivision. To inform structure planning, the following assumptions have been made:

- Absolute constraints to development, include:
 - Land under Q100 (extent of Q100 subject to detailed flood studies);
 - Existing detached residential development within the LDA boundary unlikely to contribute to increased dwelling yields;
 - The McIntosh Creek corridor (notionally a 100m open space corridor);
 - North-south open space corridors maintaining overland flow corridors; and
 - An open space corridor through the industry zoned land that is drainage and vegetation impacted.
- Land that is constraint impacted but included as potential development area subject to detailed survey, technical assessments, detail design/subdivision and negotiations with local and state authorities include:
 - Land of slope greater than 15%;
 - Areas of significant and regulated vegetation;
 - Electricity transmission easements;
 - Areas subject to current development approvals;
 - Minor stormwater drainage corridors; and
 - Areas potentially impacted by bushfire hazard.



LEGEND

- LDA Boundary
- Contours Major (5m)
- Potential Development Area
- ▨ > 15% Slope
- Waterway
- ⋯ Q100 Flood Line
- - - Q100 Constrained Land
- Power Easement
- State Roads
- Arterials & Distributors
- Local Roads (Formed)
- - - Local Roads (Un-Formed)
- Vegetation (Significant & Regulated)

Figure 3.2: Potential Development Area Southside LDA

3.2 Movement Network - Street Network & Public Transport

Opportunities and Challenges

The vast majority of transit in Gympie is private car trips. Analysis of ABS census data of the method of travel to work of the residents in Southside in 2011 shows that 1.1% used public transport while 80.9% used a private vehicle, compared with 10.0% and 68.1% respectively in the more urbanised South East Queensland.

Numbers for walking and cycling are similarly low. Typical of regional towns, Gympie's population size and its urban structure of a single town centre servicing a highly dispersed catchment, does not support the efficient delivery of public transport, walking and cycling networks.

These challenges are compounded at Southside. The vast majority of commercial, community and employment activity is north of the Mary River and separated by a significant flood plain (see Figure 3.3). The area is structured around a few key arterial and distributor roads that service a series of closed neighbourhood enclaves and concentrate traffic onto the two arterial crossings of the river at Exhibition Road and Mary Valley Road. This results in low levels of street connectivity and route choice, limited scope to retrofit effective public transport and pedestrian/cycle inconvenience.

At current population and density levels this may not be an issue. But, as the city grows, we can expect greater levels of congestion, limitations on development due to lack of infrastructure capacity and impacts on urban quality and lifestyle amenity. The aging population will also require higher levels of accessibility to a wide range of services and public transport options.

The Southside LDA will inevitably contribute significantly more traffic onto this network. While it is beyond the scope of LDA structure planning to increase broader transport network capacity, good urban design can contribute towards greater network function and urban amenity by logically dispersing traffic through the northern and southern arterial networks as well as maximising opportunities for local convenience business, community facilities and essential services which reduce district level trips.

Contemporary street network strategies support placemaking initiatives and structure highly interconnected grid networks of streets that facilitate local mixed use development, are pedestrian and cyclist friendly and establish efficient and convenient routes supportive of future public transport. They offer clear physical distinctions between arterial routes and local streets based on function, legibility, convenience, traffic volume, vehicle speed, public safety and amenity (see Figure 3.5).

Cross River Capacity

The need for road upgrades and new roads has been recognised in the structure planning. The proposed road network has been developed to provide additional connections and relieve pressure on the network. Council will continue to work on providing an appropriate road network to accommodate the growth of Southside. Council is also in ongoing discussions with the State Government regarding cross river capacity, particularly during flood events.

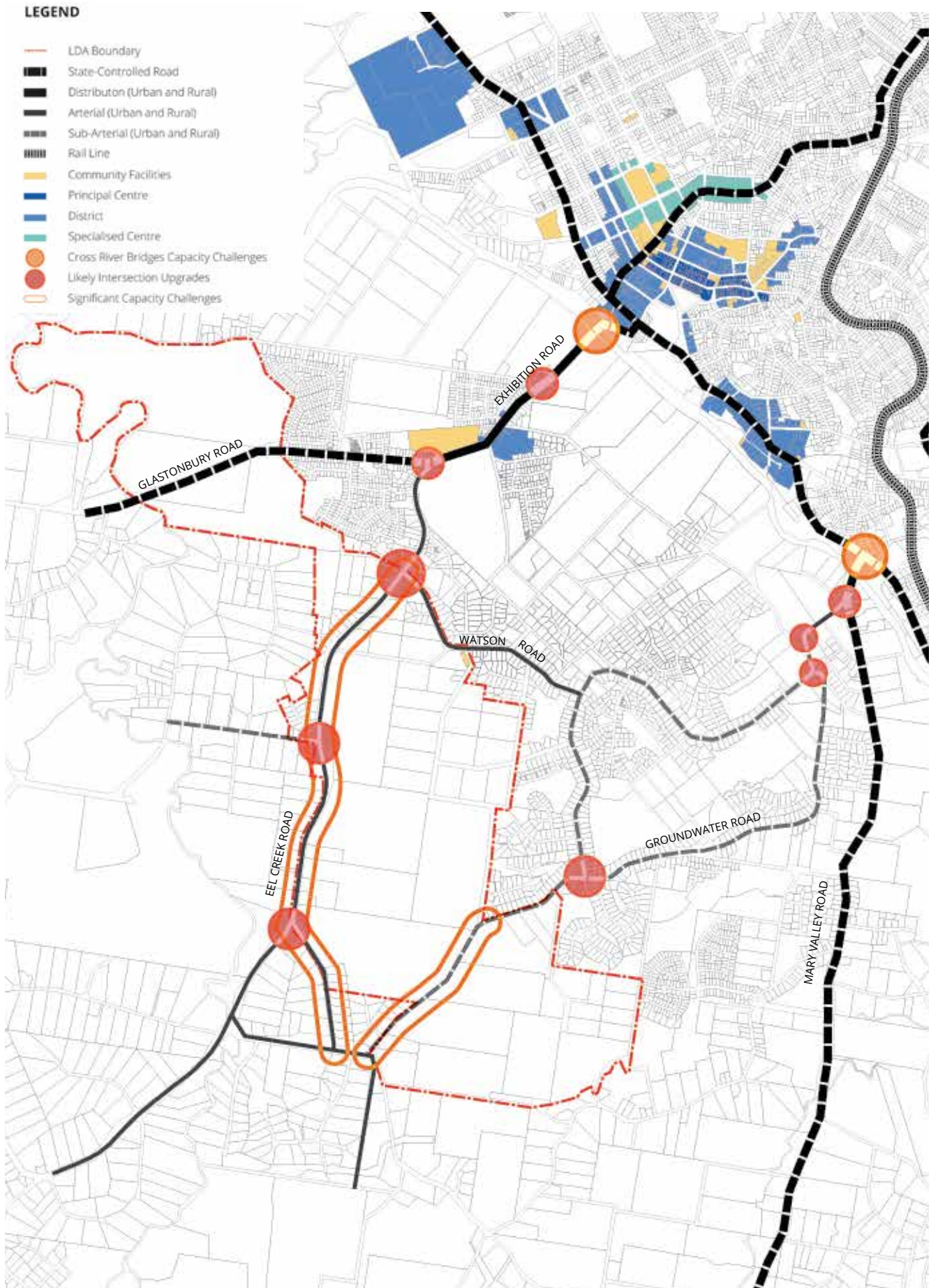


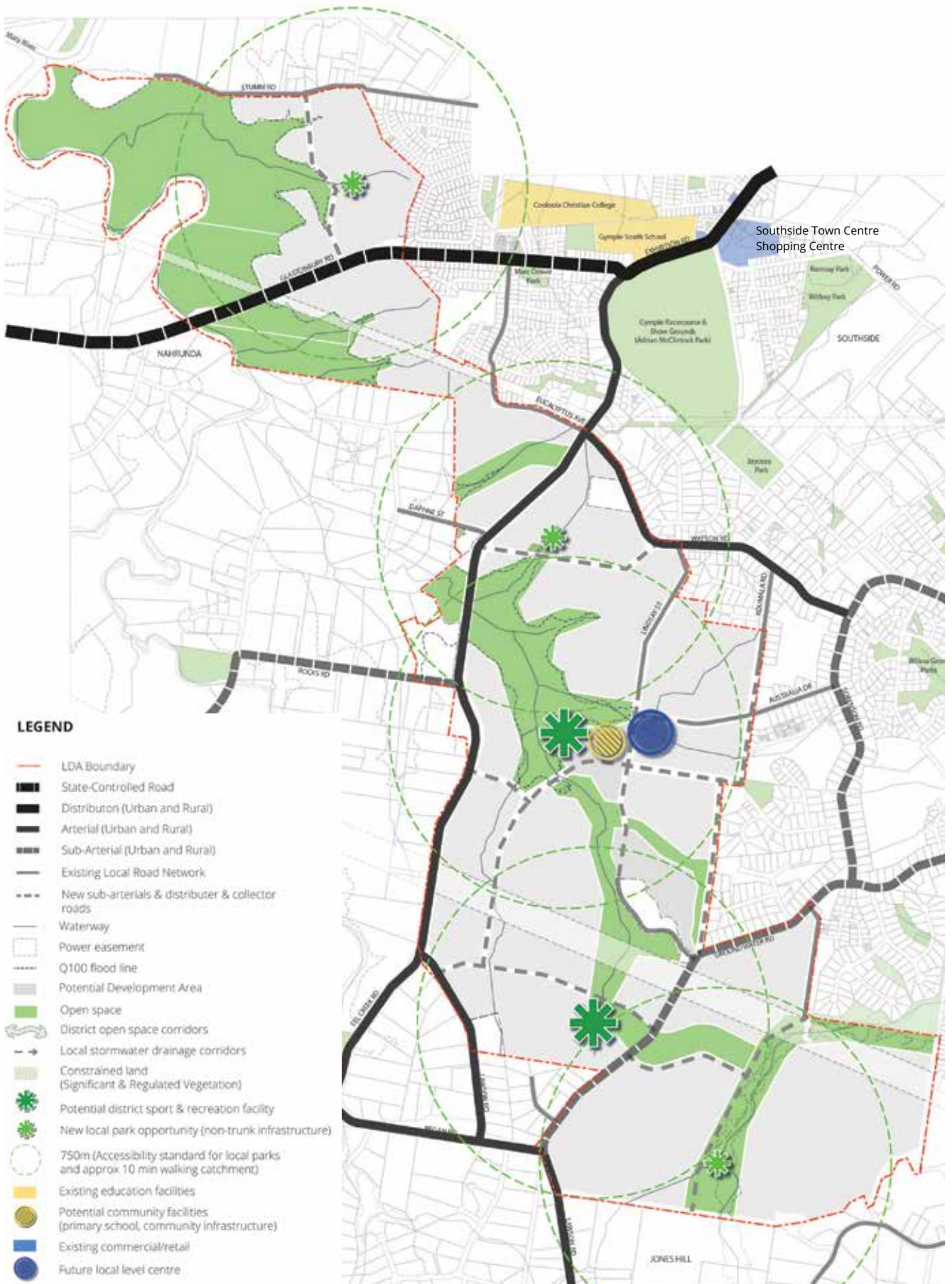
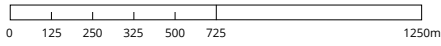
Figure 3.3: Transport Network Challenges

Goal

Establish an interconnected structure of streets that logically addresses the broader Southside context, facilitates a mix of local land uses and provides high levels of safety, legibility and connectivity.

LDA Response

- Identify any potential development limitations and implications for the timing and staging of the LDA as a result of existing Kidd Bridge and Normanby Bridge capacities and required upgrades of existing arterial and distributor streets and intersections based on growth forecasts;
- Identify medium-long term solutions that secure greater flood resilient access to the north side of the river;
- Establish a grid network of major arterial, distributor and collector roads that:
 - Extends and connects to existing major roads to appropriately balance through traffic and local traffic movement in new and existing development and maintains network efficiency levels during peak periods;
 - Utilises existing unformed street corridors and opportunities to upgrade existing roads;
 - Responds to current development applications and road networks; and
 - Maximises opportunities for development to front the street by logically spreading traffic.
- Create a site responsive street and lot layout that provides local amenity and promotes a sense of place through high quality neighbourhood design outcomes;
- Avoid road connections that sever major open space corridors and impact on the functionality of these spaces as fauna movement corridors;
- Deliver a road structure that supports the establishment of a local mixed use activity centre near the intersection of Australia Drive and Lindsay Street extensions and potential co-located community uses such as a school, essential services and districts sports/recreation uses;
- Support a safe, convenient, permeable and legible pedestrian and bicycle network and crossings of arterial and collector streets;
- Structure the network to accommodate a comprehensive future public transit network that is efficient to operate and with bus stops that are conveniently and safely accessible by foot from most dwellings even if current public transport patronage is minimal; and
- Encourage developers to design and deliver streets that:
 - Establish attractive streetscapes which reinforce the functions of a street as important and valuable public places that add value to the amenity of adjacent housing and developments;
 - Enable roads and verges to perform their designated functions in the street network, recognising that wide streets encourage higher vehicle speeds;
 - In the local activity centre, deliver higher quality streetscape design outcomes that contribute to a distinctive character and support active public life and community interaction; and
 - Deliver development and buildings that address and overlook streets wherever possible.



LEGEND

- LDA Boundary
- State-Controlled Road
- Distribution (Urban and Rural)
- Arterial (Urban and Rural)
- Sub-Arterial (Urban and Rural)
- Existing Local Road Network
- New sub-arterials & distributor & collector roads
- Waterway
- Power easement
- Q100 flood line
- Potential Development Area
- Open space
- District open space corridors
- Local stormwater drainage corridors
- Constrained land (Significant & Regulated Vegetation)
- Potential district sport & recreation facility
- New local park opportunity (non-trunk infrastructure)
- 750m (Accessibility standard for local parks and approx 10 min walking catchment)
- Existing education facilities
- Potential community facilities (primary school, community infrastructure)
- Existing commercial/retail
- Future local level centre

Figure 3.4: Street Network and Public Transport



Interconnected Grids
Interconnected street networks spread traffic and support pedestrian and cycle movement

Public Transport
The collector road network is structured to form walkable scale neighbourhoods that support public transport and access community facilities.

Local Mixed Uses
Local centres are logically located on the major road network to provide high levels of vehicular, public transport, pedestrian and cycle connectivity.

Streetscape Design
Streetscapes are designed to reflect their role and clearly distinguish their function. All streets have frontage development.

Figure 3.5: Street Network Urban Design Principles (Brighton, WA)



Passive Surveillance

Housing and community buildings are design to front streets and overlook open spaces to maximise opportunities for passive surveillance of the public realm

Local Parks

Local parks are well connected by local streets and street frontage is maximised

Placemaking

The street network visually engages natural assets and open spaces to create a distinctive characters for neighbourhoods and places like local centres

Major Roads

Streetscapes can be designed to provide comfortable and safe pedestrian/cycle movement but also contribute to the visual quality of neighbourhoods

3.3 Movement Network - Pedestrians and Cyclists

Opportunities and Challenges

There is a clear reliance in Gympie on car travel over public transport and active transport modes. In 2011, of the approximately 2,100 person workforce in Southside, only 33 people walked or cycled to work. There could be many influences of this including the wider urban structure of Gympie and the resulting travel distances, the hilly topography and the absence of safe, high quality walking and cycling infrastructure and experiences. There may be a strong community preference to drive with distance being the greatest contributing factor, but where there is convenient, safe and comfortable network infrastructure, more people are likely to walk and cycle to work and for other trips. (see Figure 3.6).

While the LDA cannot address broader active transport challenges, it can be structured and designed to encourage local walking and cycling - for convenience shopping, travel to school, access to public transport, social interaction, recreation, fitness and even some local employment - and build on Council’s existing and possible future trunk network investment.

Goal

Provide a safe, convenient and legible movement network for pedestrians and cyclists, principally along the street network and major linear open spaces, to provide excellent accessibility between all residences and points of attraction, future public transport stops and district trunk networks.

LDA Responses

- Establish a highly interconnected network of safe and legible pedestrian and bicycle paths along new roads and linear open spaces that conveniently connect residences to the local centre, community facilities, parks, potential public transport stops and points of local interest;
- Connect to and strengthen district and regional networks, particularly links to proposed pathways along Groundwater Road, Sorensen Road via Australia Drive, Watson Road and Exhibition Road;
- Design major and minor arterial/collector streets with extensive and frequent opportunity for pedestrians and cyclists to move safely along and across them;
- Provide a bike movement network to meet the needs of both experienced and less experienced cyclists, including on-road and off-road routes; and
- Wherever practicable, provide interesting pedestrian/cycle paths that engage with linear open spaces and parks for recreation purposes and exercise.

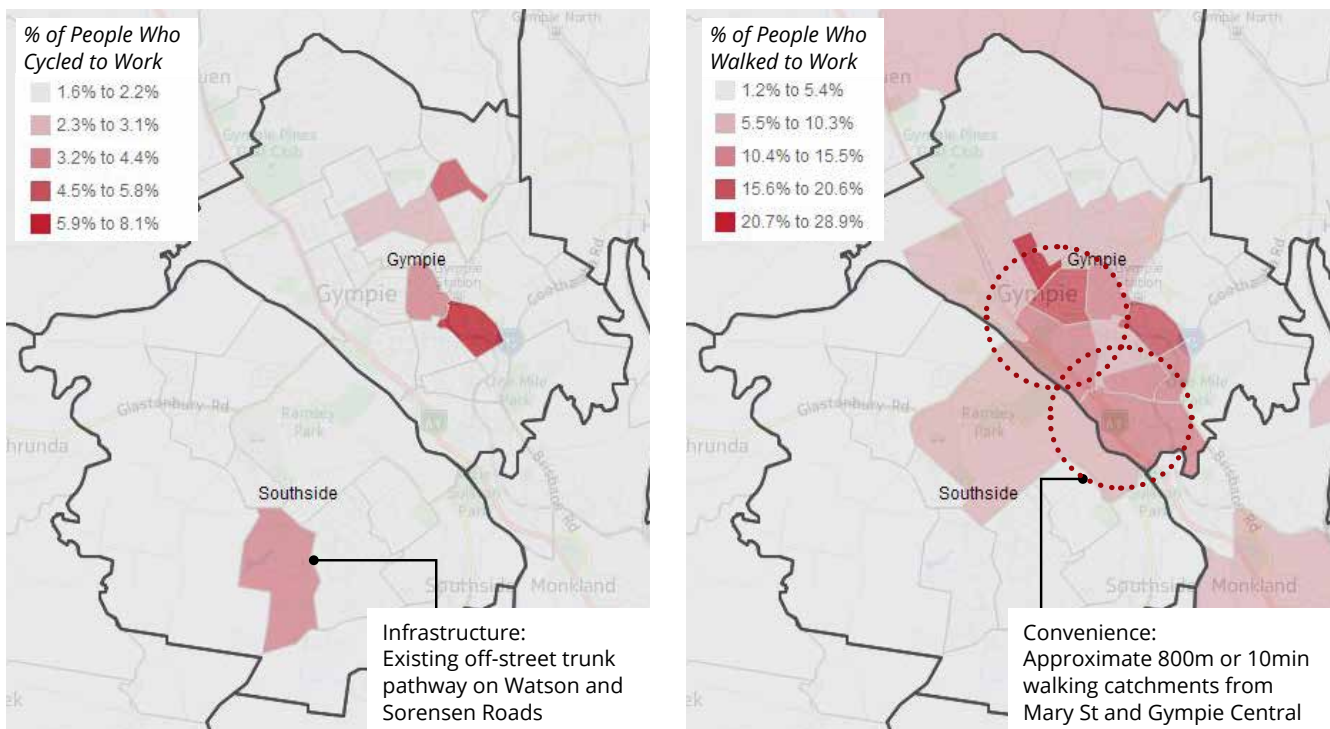


Figure 3.6: People Who Cycled or Walked to Work (2011 Census, ABS)

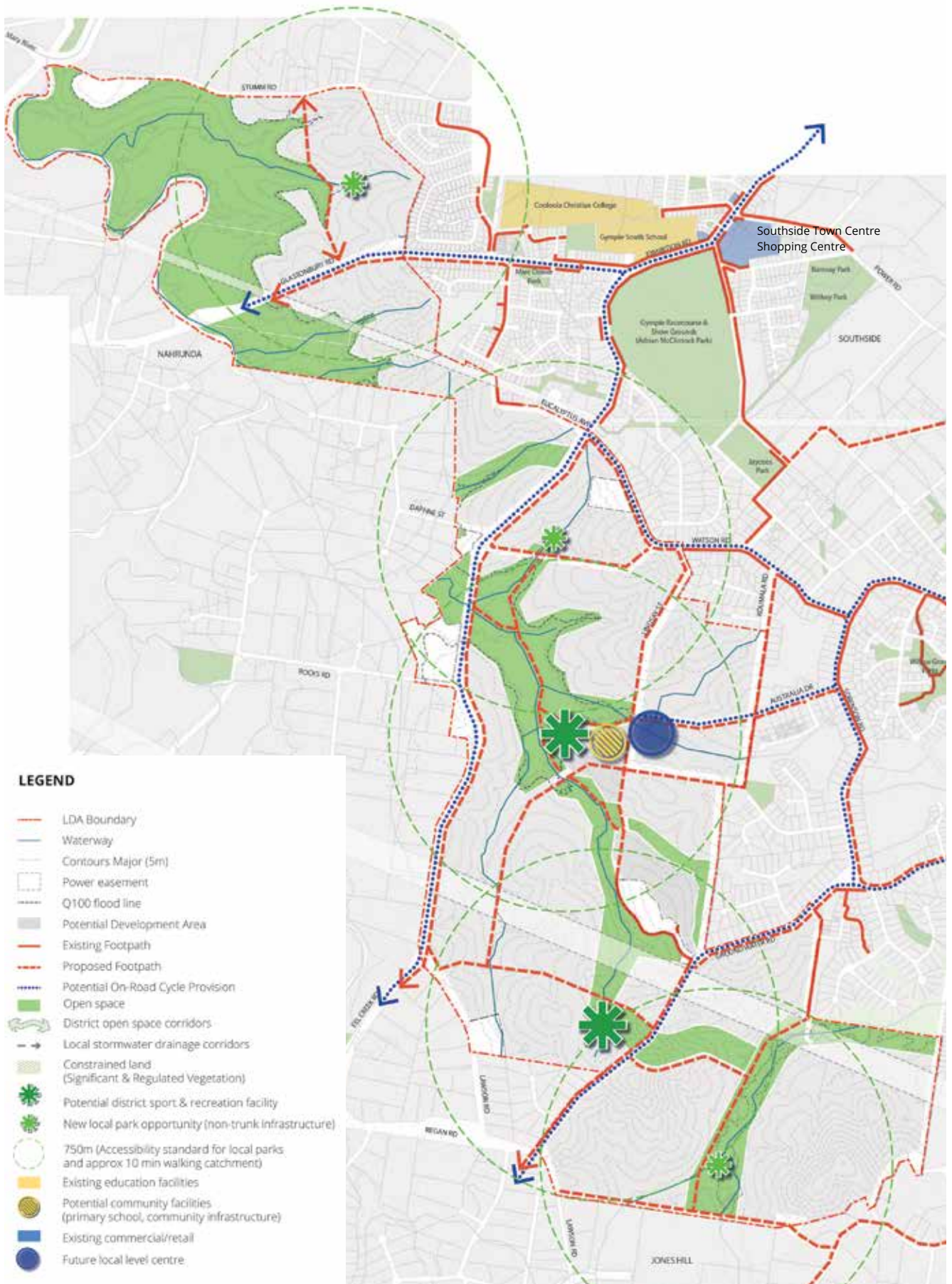
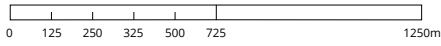


Figure 3.7: Pedestrian and Cycle Networks

3.4 Residential Density and Housing Choice

Opportunities and Challenges

Gympie's Urban Area (Gympie-North and Gympie-South Statistical Areas) will experience ongoing demand for new housing driven by forecast population growth to 2036. This growth, and changes in household structures, will see significant shifts in lifestyle preferences and demand for different housing types - such as smaller lots or retirement dwellings - over the strategic timeframe of the LDA's development. The largest changes in the age and household structure between 2006 and 2011 were:

POPULATION AND HOUSEHOLD CHANGE 2006 TO 2011	GYMPIE SA2	SOUTHSIDE SA1
The largest upward changes in age structure	<ul style="list-style-type: none"> • Empty nesters and retirees (60 to 69) • Babies and pre-schoolers (0 to 4) • Parents and homebuilders (35 to 49) • Seniors (70 to 84) 	<ul style="list-style-type: none"> • Empty nesters and retirees (60 to 69) • Young workforce (25 to 34) • Older workers and pre-retirees (50 to 59) • Seniors (70 to 84)
The largest upward changes in family/household types	<ul style="list-style-type: none"> • Lone person • Couples without children 	<ul style="list-style-type: none"> • Lone person • Couples without children • One parent families

Table 3.1: Population and Household Change 2006 to 2011

Overall, in 2011 'Parents and Homebuilders' was the most populous age structure across the urban area but the combined number of older age groups is greater in number. The trends above indicate the Urban Area population is aging and average household sizes decreasing, but Southside and the wider Urban Area are likely to continue to attract family households.

These population and household changes suggest that detached housing on large urban or rural residential lots - the traditional housing form in Gympie - will decreasingly meet the essential needs or suit the lifestyles of the future community over time. New development will need to include a mix of more smaller lot sizes and dwelling forms to suit an older population and smaller household sizes with a range of affordability levels. Higher levels of accessibility to local services and public transport will be increasingly in demand by residents.

A range of other factors will also influence the LDA's overall housing density and dwelling forms, including:

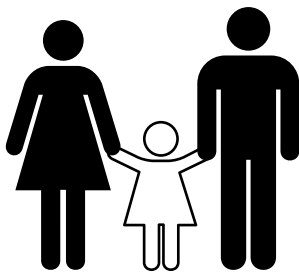
- Larger lots that respond to local constraints such as steep land, significant vegetation or easements;
- Lots sizes that provide appropriate visual transitions between urban and rural residential areas;
- Lots not serviced by reticulated sewerage infrastructure; and
- Overall, higher average residential densities near local activity centres that are supportive of local commercial and community services and public transport

Goal

Design safe, convenient and attractive neighbourhoods that respond to their locational and physical context and meet the diverse and changing needs of the community by offering a wide choice of housing and high levels of access to local commercial, community and essential services.

LDA Responses

- Deliver a broad mix of lot sizes and dwelling types across the LDA to suit a range of household structures and sizes, varying levels of affordability and to meet the needs of retirees and older age groups;
- Seek opportunities to deliver future aged care housing in a manner that is well integrated with neighbourhoods;
- Establish higher density housing in areas close to the future local centre to support local commercial viability and levels of service, facilitate an increase in the use of public transport, walking and cycling, and deliver suitable dwelling types to meet the needs of an aging population;
- Ensure a site-responsive approach to development density and neighbourhood design that supports and enhances the context, acknowledges Gympie's traditional urban form and character, strengthens Southside's local character and identity and responds to physical and infrastructure constraints;



MORE

Couples without children than with children

The number of couples without children continues to exceed that of couples with children. Singles and childless households are attracted to more urban areas with clustered amenity and social opportunities.



1 in 5

Aged 65 years and older

1 in 5 people are aged 65 years and over and the number continues to grow. Older people have little disposable income for costly activities, so it is essential that freely accessible spaces and activities are provided.



7.8%

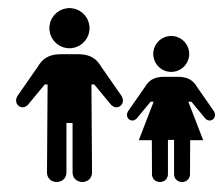
Unemployed

Gympie's unemployment rate at 7.8% is significantly higher than the national average of 5.6% (2011 figure), partly due to the large proportion of older population.



29%

Live alone



2.5%

Annual growth of population under 14

1 in 5 people are children aged 14 and under and the number is increasing annually by 2.5%.

Source: Gympie Town Centre Branding and Marketing Strategy, Place Partners, 2014

- Provide appropriate transitions and interfaces to neighbouring areas; and
- Opportunities for increased residential densities exist where land is directly adjacent to high quality open space/ recreation parks (connected linear park along the district open space corridor, local park or district park). Increased densities in these locations are dependent on the design and layout of the development facilitating a high level of connectivity, integration, maximised road frontage to open spaces/ recreation parks and ensures passive surveillance. Increased densities are also contingent upon protecting, and securing in perpetuity, the district open space corridor connection of a sufficient width (as identified in Figure 2.1) to preserve ecological functions.

Indicative LDA Densities and Yields

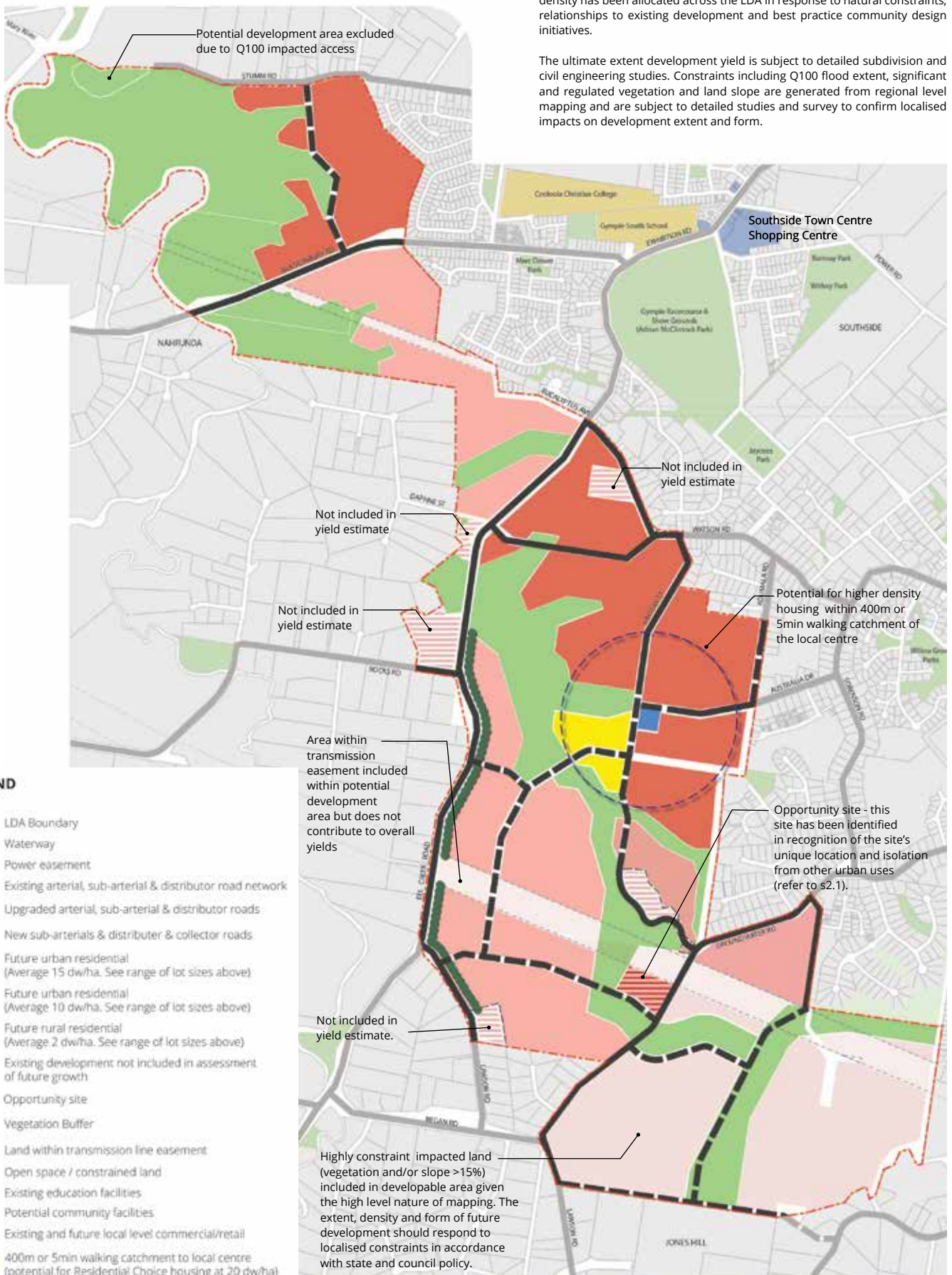
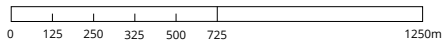
Based on the developable urban area established by the Emerging Urban Structure Plan (Figure 2.1), an indicative development yield has been calculated based on the following assumptions:

- Neighbourhoods are calculated at 15dw/ha in line with Wide Bay Burnett Regional Plan growth management initiatives;
- Current development application yields achieve approximately 8.5 - 10 dw/ha;
- Rural Residential allotments are an average of 4000m² or 2dw/ha; and
- Within a 400m or 5 minute walking catchment of the local centre, there are future opportunities for *Residential Choice* housing (typically 20 dw/ha) as emerging commercial and recreation uses increase local amenity and services. No allowance has been made for this *Residential Choice* housing in overall yields but Council may consider future appropriate development outcomes based on merit.

Typical housing densities and lot sizes are illustrated in Figure 3.9 (see over).

PRELIMINARY SCHEDULE OF LAND USE AREAS AND POPULATION YIELDS		
USE	AREA (ha)	INDICATIVE DWELLING YIELD
Future Rural Residential (2 dw/ha)	79.3	159
Future Urban Residential (8.5-10 dw/ha)	124.1	1087
Future Urban Residential (11-14 dw/ha)	7.5	105
Future Urban Residential (15 dw/ha)	114.3	1710
Sub Total Residential Yields	325.2	3061
Local Activity Centre	1.0	-
Community Uses	6.7	-
Ancillary Uses <i>(Transmission easements, open space, excluded existing residential land, existing major roads)</i>	257.1	-
TOTAL LDA	590 ha	3061 dwellings
		@ 2.5 persons/household = 7652 persons

Table 3.2: Preliminary Schedule of Land Use areas and Population Yields



The intent of this plan is to identify strategic level housing and population yields for the Southside Local Development Area based on the Emerging Urban Structure Plan and site development constraints. Development density has been allocated across the LDA in response to natural constraints, relationships to existing development and best practice community design initiatives.

The ultimate extent development yield is subject to detailed subdivision and civil engineering studies. Constraints including Q100 flood extent, significant and regulated vegetation and land slope are generated from regional level mapping and are subject to detailed studies and survey to confirm localised impacts on development extent and form.

Figure 3.8: Southside LDA Indicative Dwelling Density and Yield Plan

Typical Residential Densities and Development Forms



Rural Residential Housing

Lot Area: 4000m² +
Density: < 2dw/ha
Typical Lot Size: vary

Traditional Detached Housing

Lot Area: 500m² to 1000m²
Density: 10 dw/ha to 8 dw/ha
Typical Lot Size: Frontage: 15m to 25m
Depth: 30m to 50m

Figure 3.9: LDA Housing Density and Dwelling Forms



Regional Plan Target Urban Density

Lot Area: 500m² to 700m²
 Density: 15 dw/ha to 12 dw/ha
 Typical Lot Size: Frontage: 12m to 20m
 Depth: 30m to 35

Local Centre Housing

Lot Area: 300m² to 500m²
 Density: 20 dw/ha to 15 dw/ha
 Typical Lot Size: Frontage: 10m to 12m
 Depth: 30m

3.5 Local Activity Centre and Community Infrastructure

Opportunities and Challenges

The establishment of well-located activity centres is necessary to serve local community needs and deliver more strategic social and environmentally sustainable outcomes for Gympie. Short term land uses and development should not prejudice future long term development intentions, but should adapt to the future growth of the centre and surrounding catchment over time as circumstances change.

Southside is predominately a residential suburb and is segregated from the vast majority of Gympie's commercial, employment, community and essential service activities by the Mary River and its significant flood plain (see Figure 3.10). The LDA will contribute significantly to the city's population growth, and this growth provides the opportunity to establish a wide mix of local commercial and community services that will not only meet the needs of the future community but also enhance the amenity of existing residential areas. The benefits of this greater self-containment to Southside and wider Gympie include:

- Supporting the creation of community, local identity and a sense of place;
- Greatly enhancing opportunities for housing diversity and choice;
- Reducing traffic on the capacity challenged Mary River crossing;
- Reducing the impacts on the Southside community by Mary River flooding; and
- Reducing dependence of car travel by supporting efficient long term public transport services and encouraging walking and cycling to daily needs.

The commercial activities should essentially service local and convenience needs without competing with the role, functions and catchments of the 'Southside Town Centre' shopping centre or the Gympie Town Centre. Co-location with local and district level community and recreational uses can potentially enhance its viability and establish a significant 'heart' for the emerging community offering broad social and sustainability benefits. Additional future neighbourhood centres of up to 500m² GFA will be considered where they do not undermine the viability of existing centres or the proposed local centre on the Emerging Urban Structure Plan.

With the LDA potentially delivering a potential yield of 3000 dwellings or 7500 residents, a range of community, education and essential services will be required based on appropriate standards of service and existing availability of facilities. Table 3.3 summaries potential non-residential land uses.

Goal

Establish a highly accessible, high quality local mixed use activity centre that meets the diverse and changing needs of the local community and supports city-wide social and environmental health.

LDA Response

- Establish a local mixed use centre generally in the location of the future intersection of Lindsay Street and Australia Drive of a size and function complementary to the Town Centre and existing centres (see Figure 2.1);
- Provision for a Neighbourhood Centre can be made where less than 500m² of GFA and the need for the centre can be demonstrated. Neighbourhood Centres are only permitted where they do not undermine the visibility of the future Local Centre identified on the Emerging Structure Plan (see Figure 2.1)
- Co-locate community, education and recreational uses to support centre viability without compromising opportunities for higher density residential housing near the centre;
- Support more diverse and higher density housing options near the centre that support transit oriented design initiatives and affordability strategies;
- Ensure the centre is serviced by a highly interconnected network of sub-arterial and collector roads and pedestrian/cycle paths to maximise accessibility and convenience for pedestrians and cyclists;
- Support the future use of public transport, walking and cycling in addition to good car and service vehicle access and parking in the centre;
- Encourage retail and commercial building formats that address streets, and high quality architecture and public realm design that positively contributes to street life and ensures it is a memorable, comfortable and enjoyable places to visit;

- Locate a potential primary school to:
 - maximise opportunities for shared use of district sporting facilities;
 - maximise safe accessibility from public transport, pedestrian and bicycle networks;
- Recognise that centres and employment areas often develop later than their surrounding residential areas, and to put in place mechanisms to facilitate appropriate interim uses, together with a strategy that easily facilitates gradual intensification over time; and
- If practicable, deliver the activity centre and co-located community and recreation facilities as an integrated master plan which can ensure opportunities to maximise interrelationships, accessibility and integration of higher density development are achieved and the centre is appropriately staged to achieve its full potential as the LDA matures.

(See Figure 3.11 for an example of best practice local centre urban design initiatives)

Table 3.3: Southside LDA Commercial and Social Infrastructure Provision

Land Use	Type of Facility	Desired Standards of Service	Potential LDA Requirement (based on an Indicative LDA Population of 7,650 people)
Retail/ Commercial Uses	Neighbourhood Centre	< 500m ² of GFA	Convenience store or a small number of convenience specialty shops that will not impact on the viability of the proposed Local Centre.
	Local Centre	Typically in the range of 600 - 1,000m ² up to 2,500m ² of GFA	Small supermarket or convenience store and a small number of convenience specialty shops.
Community Uses	Community Meeting Room	1:2,500 - 3,000 people	1 x Community Meeting Room
	Multi-purpose hall/ local community centre	1:6,000 - 10,000	1 x Multi-purpose Hall/ Local Community Centre
	Child Care Centre (long day care)	1:500 - 700 children (0-4 years old) or 1:9,500 people	No requirement
Education Uses	Kindergarten - 1:16,000	Kindergarten - 1:16,000	No requirement
	Primary School	1:7,500	1 x Primary School

Sources:

- South East Queensland Regional Plan 2005–2026; Implementation Guideline No. 5, Social infrastructure planning, June 2007
- Gympie Regional Council

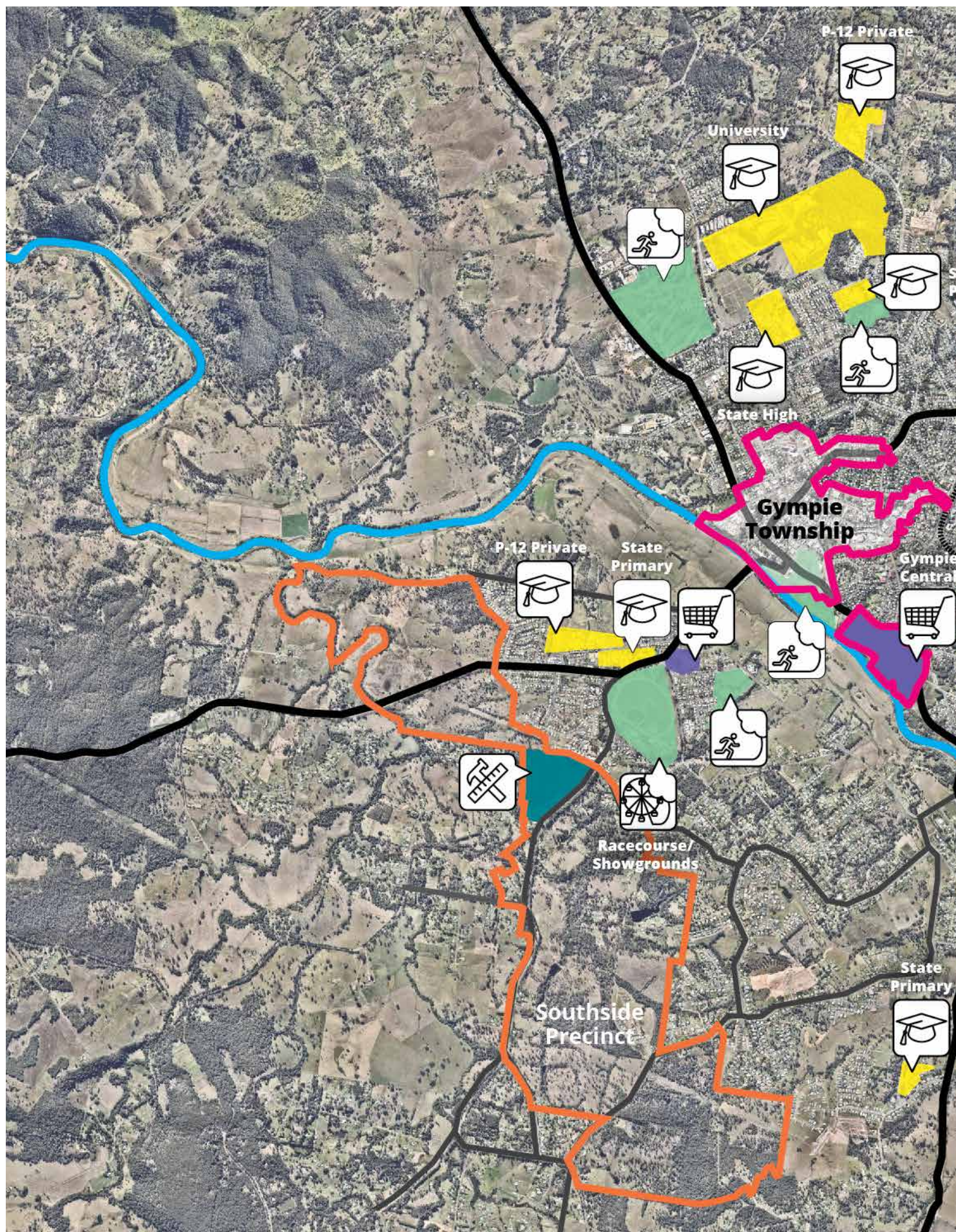
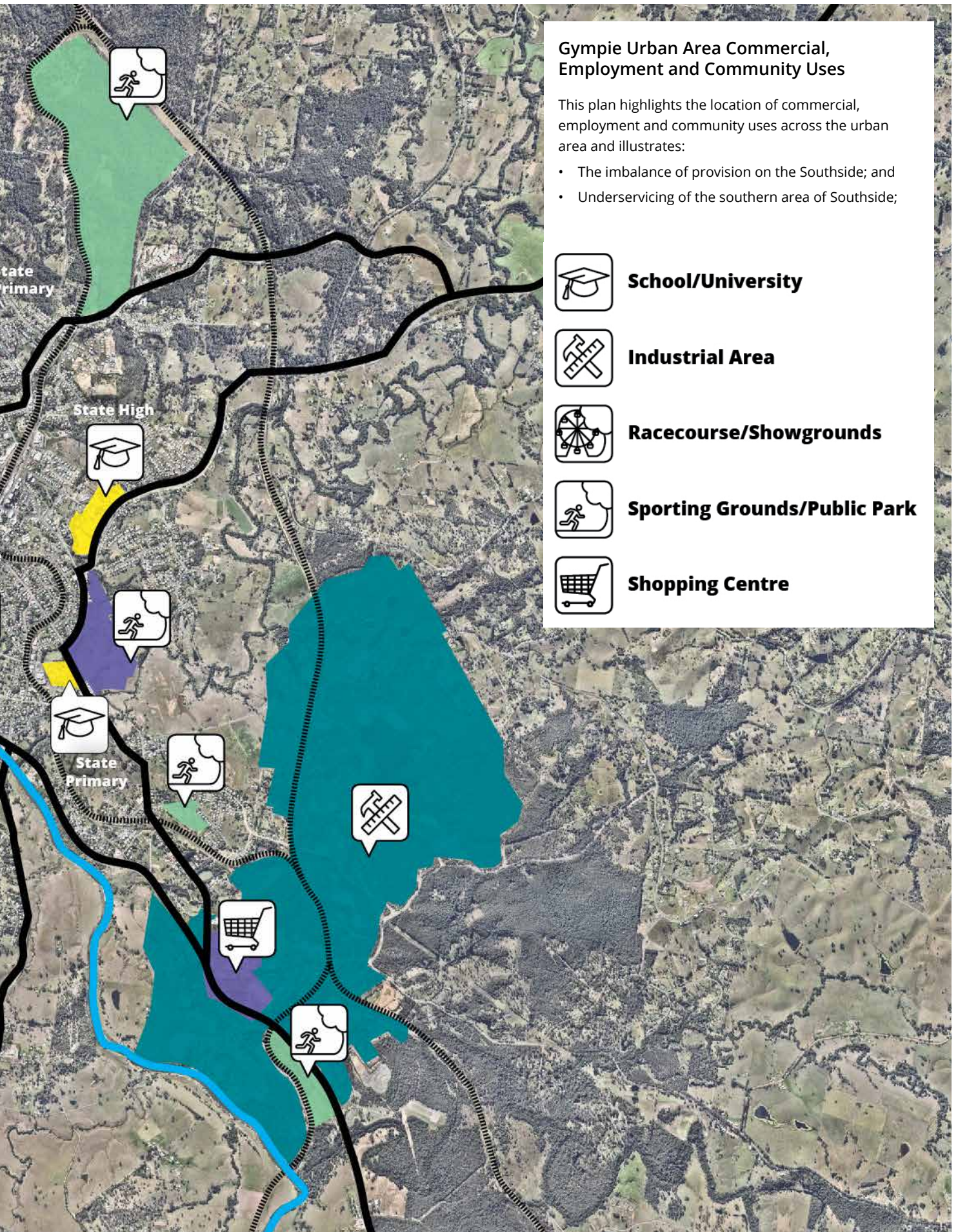


Figure 3.10: Gympie Urban Area Commercial, Employment and Community Uses



Gympie Urban Area Commercial, Employment and Community Uses

This plan highlights the location of commercial, employment and community uses across the urban area and illustrates:

- The imbalance of provision on the Southside; and
- Underservicing of the southern area of Southside;



School/University



Industrial Area



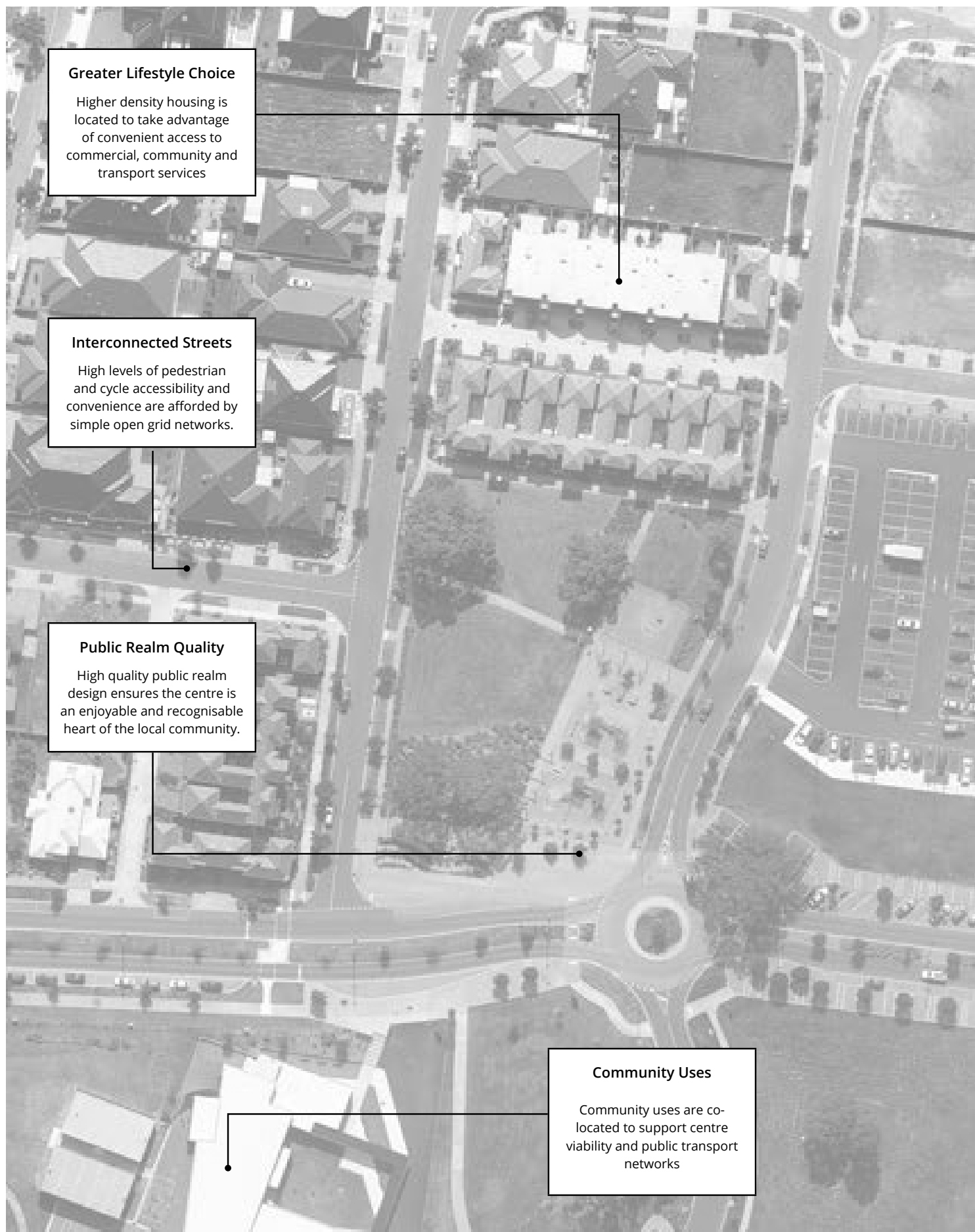
Racecourse/Showgrounds



Sporting Grounds/Public Park



Shopping Centre



Greater Lifestyle Choice

Higher density housing is located to take advantage of convenient access to commercial, community and transport services

Interconnected Streets

High levels of pedestrian and cycle accessibility and convenience are afforded by simple open grid networks.

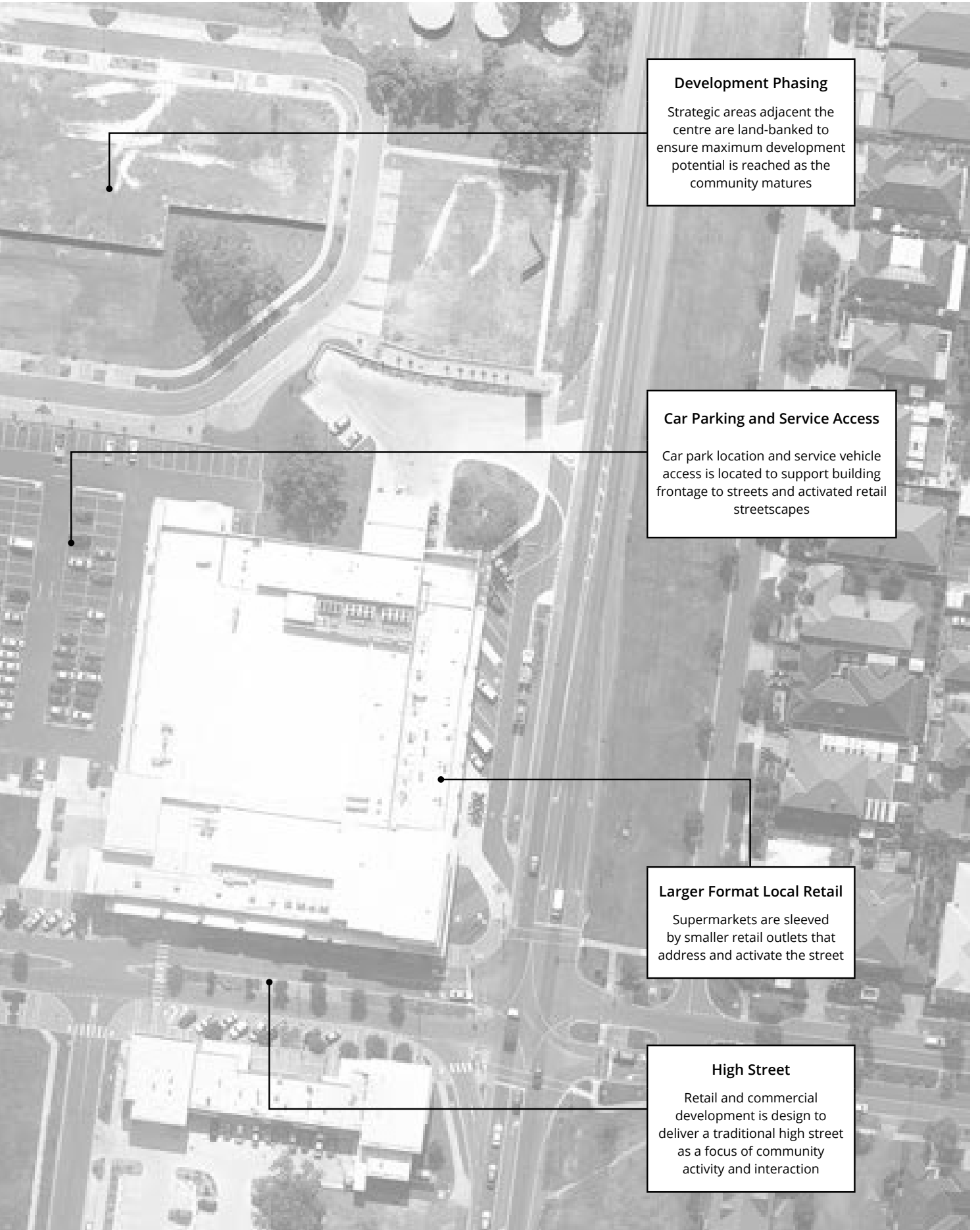
Public Realm Quality

High quality public realm design ensures the centre is an enjoyable and recognisable heart of the local community.

Community Uses

Community uses are co-located to support centre viability and public transport networks

Figure 3.11: Urban Design Principles for Local and District Activity Centres (Aurora, Victoria)



Development Phasing

Strategic areas adjacent the centre are land-banked to ensure maximum development potential is reached as the community matures

Car Parking and Service Access

Car park location and service vehicle access is located to support building frontage to streets and activated retail streetscapes

Larger Format Local Retail

Supermarkets are sleeved by smaller retail outlets that address and activate the street

High Street

Retail and commercial development is design to deliver a traditional high street as a focus of community activity and interaction

3.6 Open Space and Parks

Opportunities and Challenges

The LDA's structure and natural setting affords a valuable opportunity to structure a legible and well distributed public open space network that can deliver environmental benefits, encourage active lifestyles and create a strong sense of place by responding to Gympie's local character and landscape setting.

Recognising that residents who now live on larger lots do not generate a high level of need for local parks, the new network must still address changing housing densities over time and the variety of open space types required to create a multi-functional, integrated network addressing future recreational, social, visual, hydrological and environmental requirements.

An important strategy of the LDA's planning is the introduction of district open space corridors which establish wildlife movement corridors, protect natural vegetation and waterways, facilitate pedestrian and cyclist connectivity and reinforce the character of Gympie's natural landscape and topography (see page over). These linear corridors can be connected to existing or proposed future district open space to create a continuous network of key destinations linked by cycle/walking routes to schools, community facilities and shops. Neighbourhood parks can be integrated with district open space corridors to provide for the recreational needs of local residents.

A potential district sport and recreation park is identified for the LDA recognising that the scale of the future community will require higher order sport and leisure facilities. The park is centrally co-located with a future primary school to maximise opportunities for shared use.

Goal

Provide public open space that meets the recreational, social and health needs of existing and future communities.

LDA Response

- Deliver a comprehensive and highly accessible network of parks, open spaces and stormwater management corridors in accordance with Council's Desired Standards of Service and as an integrated and characterising structural element of the Southside LDA (see best practice examples on the following pages);
- Design a site-responsive public open space network to enhance community wellbeing, facilitate a sense of place and one that encourages physical activity and community interaction by:
 - providing all residents with access to local opportunities for sport, recreation and nature;
 - connecting existing or proposed public open space to destinations such as schools, community facilities and activity centres by locating each within walking distance of each other; and
 - co-locating public open space with activity centres, schools and community facilities where possible.
- Design local street networks and locate parks to respond to local stormwater drainage corridors;
- Encourage high quality landscape design in parks and open spaces that contributes towards community character and liveability;
- Ensure all open spaces have strong visual relationships with surrounding development in a manner that maximises personal safety day and night;

		Recreation Park	Sport Park	Community Facilities Land
Rate of Land Provision & Estimated Required Land	Local	0.4ha/1000 ppl = 3ha	-	-
	District	1.4ha/1000 ppl = 10.5ha	1.5ha/1000 ppl = 11.25ha	0.1ha/1000 ppl = .75ha
	Local Government-Wide	0.5ha/1000 ppl = 3.75ha	0.8ha/1000 ppl = 6ha	0.1ha/1000 ppl = .75ha
Accessibility Standard (km)	Local	0.5	-	-
	District	30	30	30
	Local Government-Wide	80	80	80
Min. Size of Parks & Community Land	Local	0.5	-	-
	District	2	5	0.2
	Local Government-Wide	2	10	0.5

Table 3.4: Gympie Regional Council - Desired Standards of Service for Parks

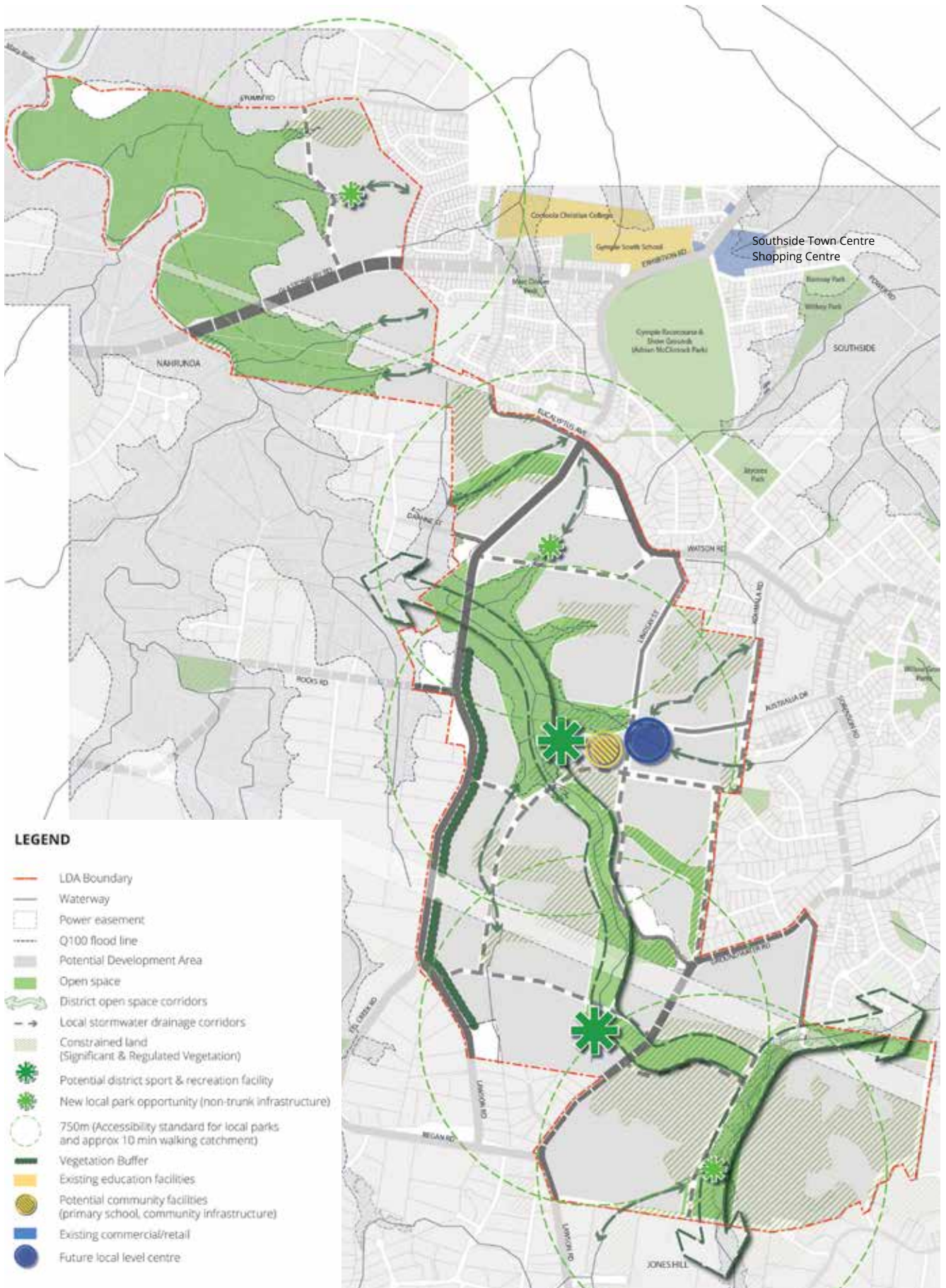
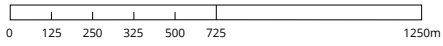


Figure 3.12: Southside LDA Open Space and Parks Plan

District Open Space Corridors

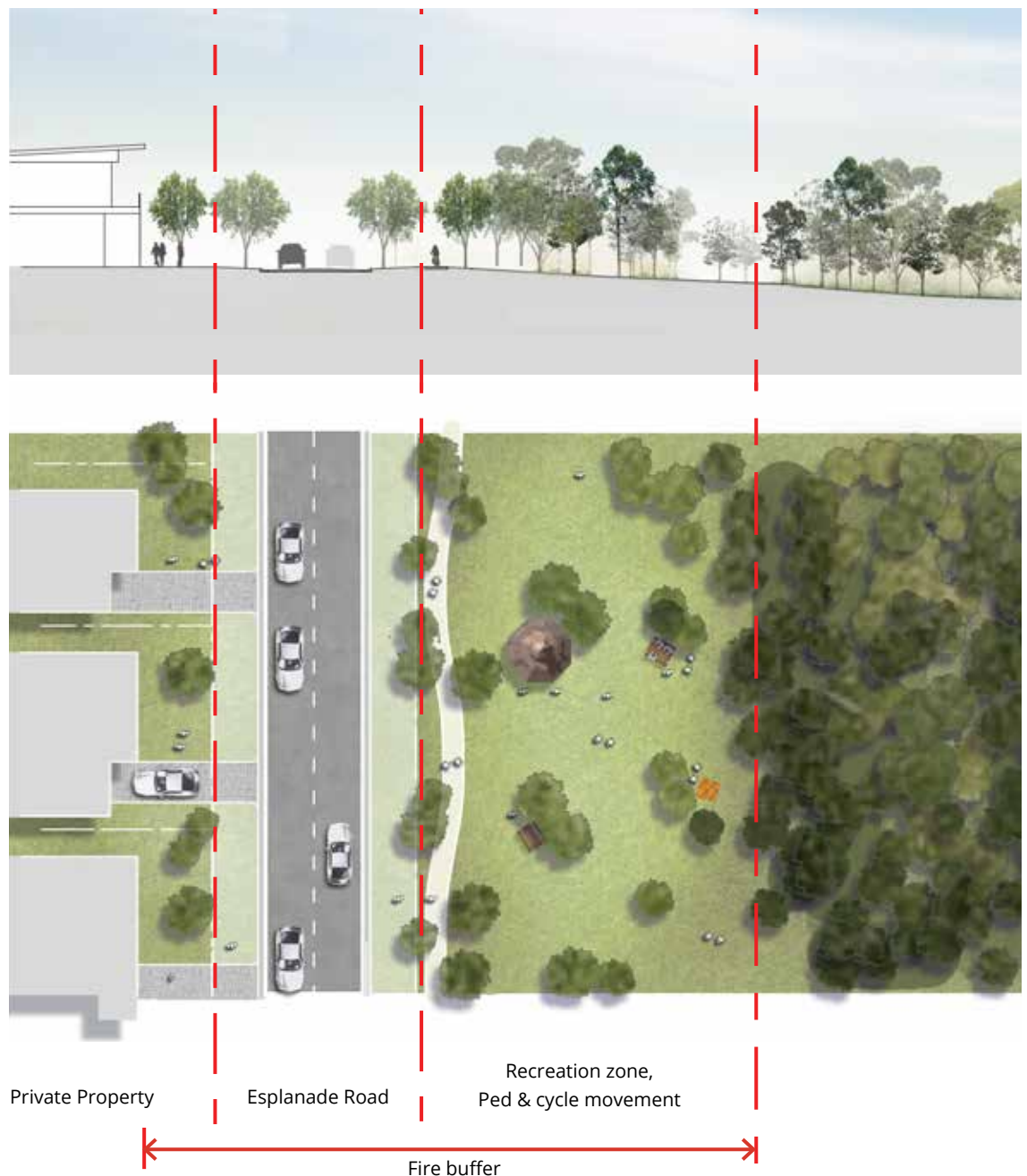
District scale open space corridors within the Southside LDA will:

- Establish important wildlife movement corridors;
- Conserve and protect natural waterways and floodprone land;
- Provide local recreation opportunities;
- Provide local and district level pedestrian and cyclist connections; and
- Greatly influence the character of the area through the protection and integration of native vegetation and reinforcement the natural landscape and topographic qualities.

A wildlife corridor is a link of wildlife habitat, generally native vegetation, which joins two or more larger areas of similar wildlife habitat. Corridors are critical for the maintenance of ecological processes including allowing for the movement of animals and the continuation of viable populations.

By providing landscape connections between larger areas of habitat, corridors enable migration, colonisation and interbreeding of plants and animals. Corridors can consist of a sequence of stepping stones across the landscape (discontinuous areas of habitat such as paddock trees, wetlands and roadside vegetation), continuous linear strips of vegetation and habitat (such as waterways, ridge lines etc.), or they may be parts of a larger habitat area selected for its known or likely importance to local fauna.

Figure 3.13: Typical District Open Space Corridor



Why are corridors important?

Habitat loss and fragmentation are the two main contributors to continuing biodiversity decline across Gympie’s landscape. A holistic approach is required across both public and private lands to protect and manage natural ecosystems and ensure connectivity between remaining habitats.

When native vegetation is cleared, fragmented patches or islands are created. These patches may become increasingly cut-off from other areas of habitat resulting in many plant and animal species becoming isolated, especially when land between the patches is permanently altered for human activities. As these vegetation patches are reduced in size and become increasingly isolated, the on-going viability of ecosystems and individual populations of species within them is severely affected. This ultimately leads to a break down in ecological processes such as species migration, dispersal, recycling of nutrients, pollination of plants and other natural functions required for ecosystem health. The likely result is severe biodiversity decline and local extinction of sensitive species.



Activity Centre Open Space

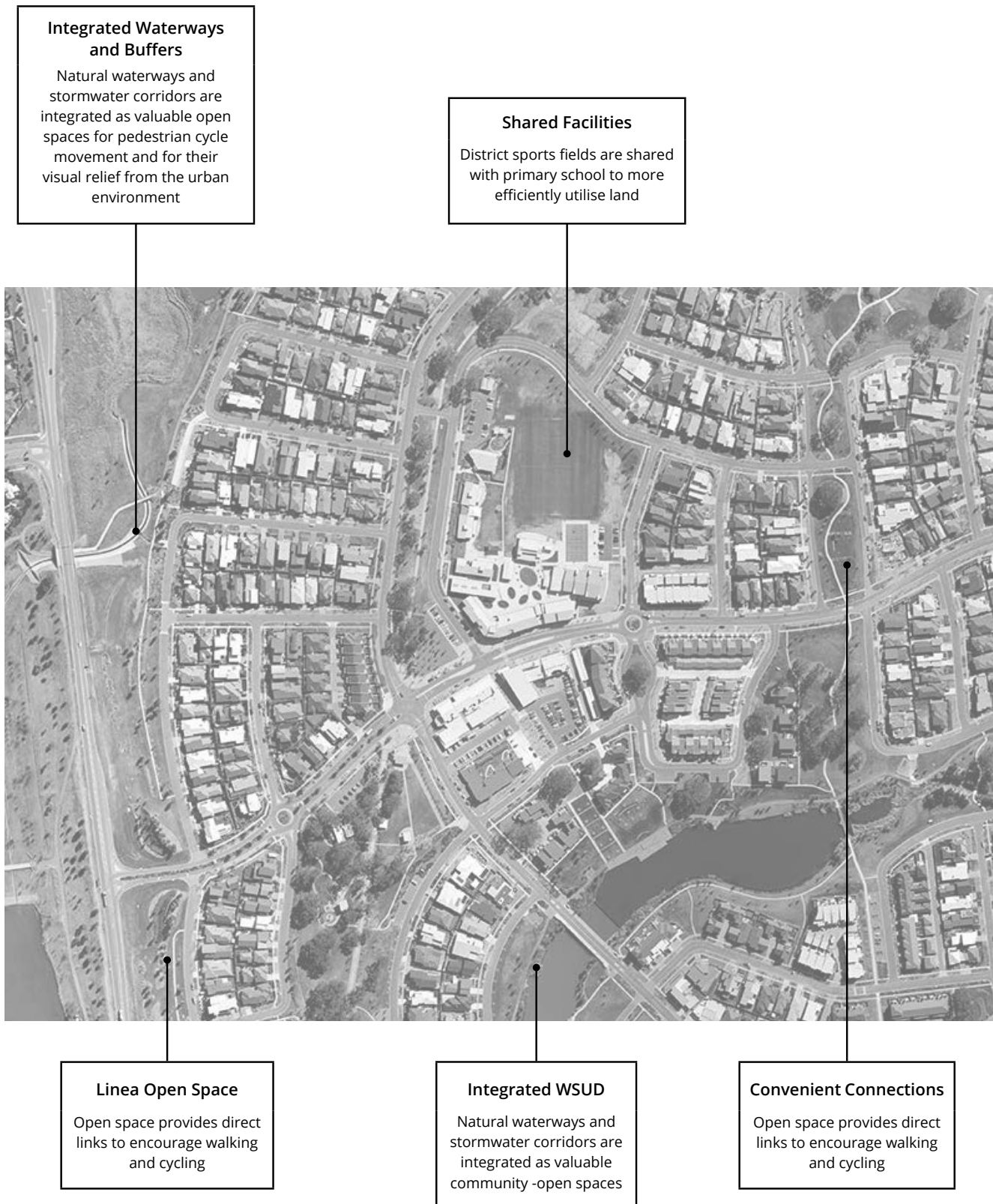


Figure 3.14: Urban Design Principles for Local and District Activity Centre Open Space and Parks - Forde ACT

Neighbourhood Open Space

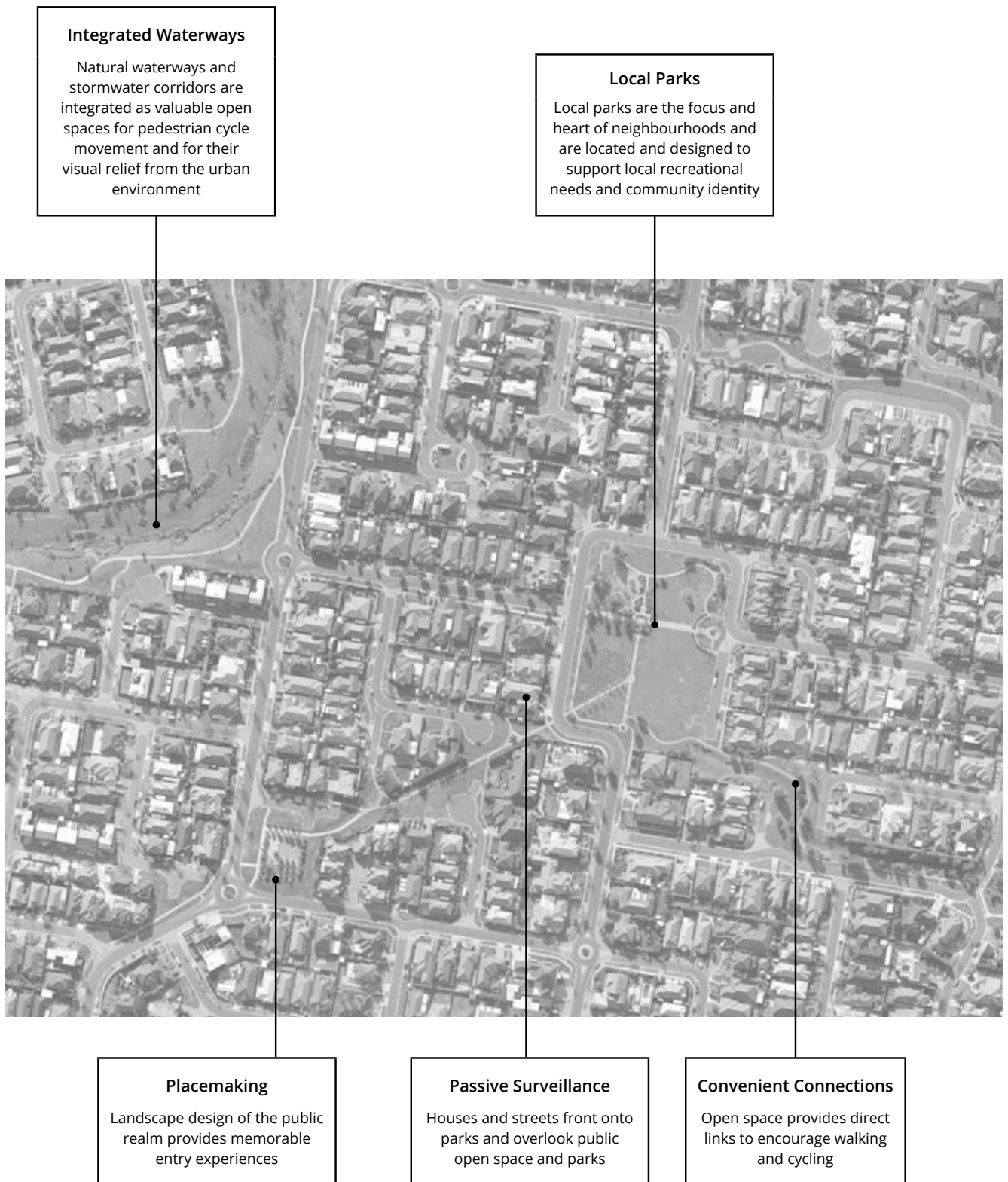


Figure 3.15: Urban Design Principles for Neighbourhood Parks and Open Space - Caroline Springs Victoria

3.7 Staging

Staging of the development in the Southside LDA will rely largely on the appetite of individual land owners to develop and the provision of infrastructure, such as reticulated water and sewer networks and the construction or upgrading of roads and other transport infrastructure.

The LDA is outside of the Priority Infrastructure Area (PIA) and not included in Council's current servicing strategy. As the LDA is outside of the PIA infrastructure required to support development will be at the cost of the developer. In these instances the servicing strategy for individual development sites will be resolved as part of Development Assessment.

The delivery of reticulated water and sewer networks has been explored by Council at a strategic level and further work is continuing with regard to how the LDA will be serviced into the long term.

As the most challenging reticulated network to deliver, sewer infrastructure traditionally drives the optimal sequence for delivery of infrastructure in greenfield areas. As land within the LDA is unserviced existing development relies on on-site treatment options (e.g. septic tanks). Council is currently considering options for delivery of sewer infrastructure to the LDA and preliminary investigations indicate that servicing the western portion of the LDA (i.e. near Watson Road, Lindsay Street, Australian Drive and Groundwater Road) can occur in the early stages of development of the LDA.

The LDA is currently supplied by limited water infrastructure by the Jones Hill reservoirs and the Ferguson Hill reservoirs by the Kidd Bridge pressure relief valve. This infrastructure is sufficient to support the residential uses currently within the Southside LDA but will require upgrade as the population grows. There is some ability to service growth from existing mains however upgrades and new water infrastructure will be required as development of the LDA occurs.

The indicative road network on the identified in the structure plan provides for the key connections that will be required, however further investigations will be required to confirm the alignment and horizontal geometry of these roads as well as the precise location and type of intersections that will be required.

The primary north-south and east-west street connections will be vital to delivering new development in the LDA and establishing supporting the viability of the Local Centre and community uses.

As the Southside LDA is outside of the Priority Infrastructure Area developers will be responsible for the provision of infrastructure to service new development. Based on the availability of infrastructure the general preference is for new development to occur in proximity to existing development in the west of the LDA until such time as new infrastructure can be brought online. This does not preclude development occurring in other areas of the LDA as land owners can bring forward development at any time.

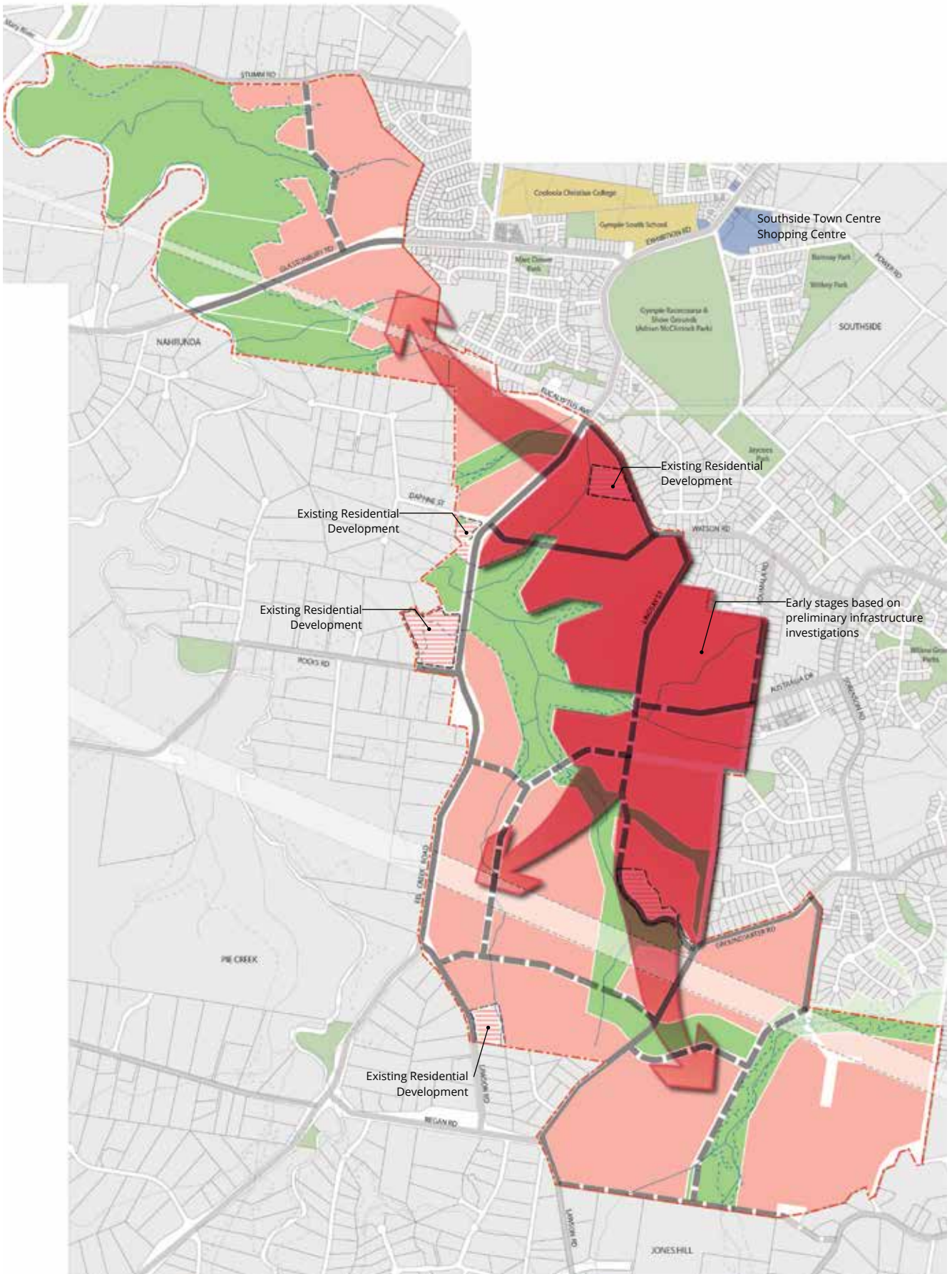
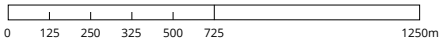


Figure 3.16: Staging Strategy Option

4.0 Next Steps

The structure planning process has demonstrated the importance of managing the development of the Southside LDA to ensure integrated and orderly development. The structure plan provides the framework to guide the development of the Southside LDA by defining the future land use pattern, indicative densities, open space corridors and indicative infrastructure networks such as roads. The protection of these features will facilitate future development of the Southside LDA in line with the Overall Outcomes set in the Planning Scheme.

This structure plan will be translated into an amendment to the Planning Scheme which will allow for development to proceed. The amendment to the Planning Scheme will include the structure planning maps along with a range of provisions to ensure that development proceeds in accordance with the structure plan and the key features are retained through development of the LDA.

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